A

GUIDE TO HEALTH;

BEING

CAUTIONS AND DIRECTIONS

IN THE

TREATMENT OF DISEASES.

DESIGNED CHIEFLY FOR THE USE OF

STUDENTS.

BY THE REV. JOSEPH TOWNSEND,

RECTOR OF PEWSEY,

AUTHOR OF THE PHYSICIAN'S VADE MECUM,

AND OF A JOURNEY THROUGH SPAIN.

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CONTENTS OF VOLUME II.

PAGE

GEN. XLIX. PERTUSSIS. *Chin-cough* or *Hooping-cough* - - - - - - - - - - 1

Sect. I. Of the *proximate Cauſe* of HOOPING-COUGH 1

Sect. II. Of the *Indications* of *Cure* in HOOPING-COUGH - - - - - - - - - - - 2

Genus L. PYROSIS. *Water-braſh* - - - 4

Gen. LI. DYSENTERIA. *Dyſentery* - - - 4

Sect. I. Of the *proximate Cauſe* of DYSENTERY - 4

Sect. II. Of the *remote Cauſe* of DYSENTERY - - 6

Sect. III. Of the *Indications* of *Cure* in DYSENTERY 9

Gen. LII. COLICA. *Colic* - - - - - - - 14

Sect. I. Of the *Species* of *Colic* - - - - - - - 14

Sect. II. Of the *proximate Cauſe* of COLIC, and *Indications* of *Cure* - - - - - - - - 15

Gen. LIII. CHOLERA. *The Cholera Morbus* - 16

Sect. I. Of the *Cauſes* of CHOLERA - - - - - 17

Sect. II. Of the *Cure* of CHOLERA - - - - - - 18

Gen. LIV. DIARRHŒA - - - - - - - - - 19

Sect. I. Of the *Cauſes remote* and *proximate* of DIARRHŒA - - - - - - - - - - 19

Sect. II. Of the *Indications* of *Cure* in DIARRHŒA 20

PAGE

Genus LV. DIABETES. *An imoderate flow of Urine* 24

Sect. I. Of the *Cauſes proximate* and *remote* of DIABETES - - - - - - - - - - - 24

Sect. II. Of the *Indications* of *Cure* - - - - - 33

Gen. LVI. HYSTERIA - - - - - - - - - - 34

Sect. I. Of the *attendant Symptoms* - - - - - - 34

Sect II. Of the *prediſpondent Cauſe* of HYSTERIA 35

Sect. III. Of the *occaſional Cauſes* of HYSTERIA - 36

Sect. IV. Of the *proximate Cauſe* of HYSTERIA - 37

Sect. V. Of HYSTERIA as *diſtinguiſhed* from HYPOCHONDRIASIS - - - - - - - - 38

Sect. VI. Of the *Indications of Cure* in HYSTERIA 39

Gen. LVII. HYDROPHOBIA. *Canine Madneſs* - 52

Claſs II. NEUROSES.

Order IV. *VESANIÆ.*

Gen. LVIII. ONEIRODYNIA. *Incubus* or *Night-mare* 55

Introduction - - - - - - - - - - - - - - - 55

Sect. I. Of the *Species* of ONEIRODYNIA with *Synonima* - - - - - - - - - - - - 56

Sect. II. Of the *Cauſes remote* and *proximate* of ONEIRODYNIA GRAVANS - - - - - 58

Sect. III. Of the *Brain* - - - - - - - - - - 60

Sect. IV. Of *Sleep* - - - - - - - - - - - 71

Sect. V. Of *Vigilance* - - - - - - - - - - 77

Sect. VI. Of *Dreaming* - - - - - - - - - 87

Sect. VII. Of the *Cauſes remote* and *proximate* of ONEIRODYNIA GRAVANS - - - - - 90

Sect. VIII. Of the *Indications* of *Cure* in ONEIRODYNIA - - - - - - - - - - - 91

Gen. LIX. MELANCHOLIA. *Melancholy* - - - 93

Introduction - - - - - - - - - - - - - - 93

Sect.

PAGE

Sect. I. Of *Delirium* - - - - - - - - - 94
Sect. II. Of the *Hiſtory* and *Progreſs* of MELANCHOLY - - - - - - - - - - - 100
Sect. III. Of the *remote Cauſes* of MELANCHOLIA, with *Caſes* - - - - - - - - - 102
Sect. IV. Of the *proximate Cauſe* of MELANCHOLIA 109
Sect. V. Of the *Indications* of *Cure* in MELANCHOLIA - - - - - - - - - - 120

Gen. LX. MANIA. *Furious Madneſs* - - - - - 129
Sect. I. The *Hiſtory* of MANIA - - - - - - 129
Sect. II. Of the *Species* of MANIA - - - - - 132
Sect. III. Of the MANIA MELANCHOLICA - - 135
Sect. IV. Of MANIA PHRENITOIDES - - - - 145
Sect. V. Of MANIA HYSTERICA - - - - - - 156
Sect. VI. Of the MANIA MENTALIS of Dr. Cullen 173

Gen. LXI. AMENTIA. *Idiotiſm* - - - - - - - 186

Claſs III. CACHEXIÆ.
CACHEXIES.

Introduction - - - - - - - - - - - - - - - 182

Sect. I. Of the *Abſorbents* and their *Uſe* - - - 184
Sect. II. Of *Morbid Action* in the *Abſorbents* - - 190
Sect. III. Of the general *Indications* of *Cure* in morbid action of the ABSORBENTS - - 194

Claſs III. CACHEXIÆ.
Order I. *MARCORES.*

Gen. LXII. TABES. *A waſting of the Body* - - - 203
Sect. I. Of *Nutrition* - - - - - - - - - 203
Sect. II. Of the *occaſional Cauſes* of EMACIATION and DEBILITY - - - - - - - - 216
Sect. III. Of HECTIC - - - - - - - - - - 219
Sect. IV. Of the *Species* of TABES - - - - - - 221
Sect. V. Of the *Indications* of *Cure* in TABES - 224

Claſs

Claſs III. CACHEXIÆ.
Order II. *INTUMESCENTIÆ.*

PAGE

Gen. LXIII. POLYSARCIA. *Obeſity* - - - - - 229
Gen. LXIV. PNEUMATOSIS. *Emphyſema*, or *windy Swellings* - - - - - - - - - - 231
Gen. LXV. TYMPANITES. *Tympany* - - - - - 234
Gen. LXVI. PHYSOMETRA. *Windy Swellings of the Uterus* - - - - - - - - - - 243
Gen. LXVII. ANASARCA. *Univerſal Dropſy* - - 243
Sect. I. Of the *remote* and *proximate Cauſe* of DROPSY - - - - - - - - - - 244
Sect. II. Of the *Indications* of *Cure* in ANASARCA 246
Gen. LXVIII. HYDROCEPHALUS EXTERNUS. *An external Swelling of the Head* - - - 261
Gen. LXIX. HYDRORACHITIS. *The Spina Biſida* 262
Gen. LXX. HYDROTHORAX. *Dropſy in the Cheſt* 266
Gen. LXXI. ASCITES. *Dropſical Swelling of the Abdomen* - - - - - - - - - - 268
Sect. I. Of the *Cauſes* of ASCITES - - - - - 268
Sect. II. Of the *Indications* of *Cure* in ASCITES - 269
Sect. III. *Caſes* of ASCITES - - - - - - - - 272
Gen. LXXII. HYDROMETRA. *Dropſy of the Womb* 275
Gen. LXXIII. HYDROCELE. *Dropſy of the Scrotum* 276
Gen. LXXIV. PHYSCONIA. *Enlargement of the Abdomen* - - - - - - - - - - 278
Gen. LXXV. RACHITIS. *Rickets* - - - - - - 279
Sect. I. *Hiſtory* and *Progreſs* of RACHITIS - - 28
Sect. II. Of the *Cauſes remote* and *proximate* of RACHITIS - - - - - - - - - - 281
Sect. III. Of the *Indications* of *Cure* in RACHITIS 284

Claſs III. CACHEXIÆ.
Order III. *IMPETIGENES.*

Gen. LXXVI. SCROPHULA. *King's Evil* - - - 288

PAGE

Sect. I. *History* and *Progress* of SCROPHULA - - ib.
Sect. II. Of the *Species* of SCROPHULA - - - 290
Sect. III. Of the *proximate Cause* of SCROPHULA - 292
Sect. IV. Of the *Indications* of *Cure* in SCROPHULA ib.

Gen. LXXVII. SYPHYLIS. *Venereal Disease* - - 293
Gen. LXXVIII. SCORBUTUS. *Scurvy* - - - - - 303
Gen. LXXIX. ELEPHANTIASIS - - - - - - 307
Gen. LXXX. LEPRA. *Leprosy* - - - - - - - 311
Gen. LXXXI. TRICHOMA. *Plica Polonica* - - 313
Gen. LXXXII. ICTERUS. *Jaundice* - - - - 314

Sect. I. Of the *Causes remote* and *proximate* of ICTERUS - - - - - - - - - - - - 315
Sect. II. Of the *Species* of ICTERUS - - - - 316
Sect. III. Of the *Indications* of *Cure* in ICTERUS - 325
Sect. IV. Of *Cases* of JAUNDICE - - - - - 334

Gen. LXXXIII. CHLOROSIS. *Green Sickness* - - 342

Sect. I. Of the *Causes remote* and *proximate* of CHLOROSIS - - - - - - - - - - 343
Sect. II. Of the *Indications* of *Cure* in CHLOROSIS 345

Class IV. LOCALES.

Order I. *DYSÆSTHESIÆ.*

Gen. LXXXIV. CALIGO. *Darkness* - - - - - - 351
Gen. LXXXV. AMAUROSIS. *Gutta Serena* - - 357

Sect. I. Of the *History* of AMAUROSIS - - - ib.
Sect. II. Of the *proximate Cause* of AMAUROSIS and distinction into *Species* - - - 358
Sect. III. Of the *Indications* of *Cure* in AMAUROSIS 363

Gen. LXXXVI. DYSOPIA. *Defect in vision* - - - 366
Gen. LXXXVII. PSEUDOBLEPSIS. *Imaginary vision of Objects* - - - - - - - - - 367
Gen. LXXXVIII. DYSECOEA. *Hearing diminished or destroyed* - - - - - - - - - 369

PAGE

Sect. I. Of the *Causes* of DEAFNESS - - - - ib.
Sect. II. Of the *Cure* of DEAFNESS - - - - - 571
Sect. III. *Cases* of DEAFNESS - - - - - - - 375

Gen. LXXXIX. PARACUSIS. *Singing in the Ears* - 379
Gen. XC. ANOSMIA. *Smell diminished or destroyed* - - - - - - - - - 382
Gen. XCI. AGEUSTIA. *Taste diminished or destroyed* - - - - - - - - 383
Gen. XCII. ANÆSTHESIA. *Loss of Feeling* - 384

Clafs IV. LOCALES.

Order II. *DYSOREXIÆ.*

Gen. XCIII. BULIMIA. *Appetite for Food voracious* 385
Gen. XCIV. PICA. *Appetite depraved* - - - - - 386
Gen. XCV. POLYDIPSIA. *Excessive Thirst* - - 387
Gen. XCVI. SATYRIASIS. *Libidinous Passions in Men* - - - - - - - - - - - 389
Gen. XCVII. NYMPHOMANIA. *Furor Uterinus* 393
Gen. XCVIII. NOSTALGIA. *Impatience to return home* - - - - - - - - - - 394
Gen. XCIX. ANOREXIA. *Appetite impaired* - - 395
Gen. C. ANAPHRODISIA. *Impotence* - - 398

Clafs IV. LOCALES.

Order III. *DYSCINESCIÆ.*

Gen. CI. APHONIA. *Inability to utter Sounds* 400
Gen. CII. MUTITAS. *Inability to utter articulate Sounds* - - - - - - - - - - 401
Sect. I. Of the *Species* of DUMBNESS - - - - - ib.
Sect. II. *Cases* of MUTITAS - - - - - - - 404
Gen. CIII. PARAPHONIA. *Depravation of Voice* 406
Gen. CIV. PSELLISMUS. *Vitious articulation* - 408

PAGE

Gen. CV. STRABISMUS. *Squinting* - - - - 412
Gen. CVI. CONTRACTURA. *A permanent and rigid contraction of a Joint* - - - 413

Claſs IV. LOCALES.

Order IV. *APOCENOSES.*

Gen. CVII. PROFUSIO. *Loſs of Blood* - - - - - 415
Gen. CVIII. EPHIDROSIS. *A violent and morbid Sweating* - - - - - - - - - - 416
Gen. CIX. EPIPHORA. *Lacrymation* - - - - 418
Gen. CX. PTYALISMUS. *A Salivation* - - - 423
Gen. CXI. ENURESIS. *Involuntary diſcharge of Urine* - - - - - - - - - - 425
Gen. CXII. GONORRHŒA. *A Flux from the Urethra of Men* - - - - - - - - - 428

Claſs IV. LOCALES.

Order V. *EPISCHESIS.*

Gen. CXIII. OBSTIPATIO. *Coſtiveneſs* - - - - - 431
Gen. CXIV. ISCHURIA. *Suppreſſion of Urine* - - 436
Gen. CXV. DYSURIA. *Difficulty and pain in diſcharging Urine* - - - - - - - - 446
Gen. CXVI. DYSPERMATISMUS. - - - - - - 449
Gen. CXVII. AMENORRHŒA. *Menſes wholly or partly obſtructed* - - - - - - - - 450

Claſs IV. LOCALES.

Order VI. *TUMORES.*

Gen. CXVIII. ANEURISMA. *A ſoft Tumour on Arteries with Pulſation* - - - - - - 454

PAGE

Gen. CXIX. VARIX. *A ſoft Tumour on Veins without Pulſation* - - - - - - - - - 457
Gen. CXX. ECCHYMOMA. *A Bruiſe* - - - 450
Gen. CXXI. SCIRRHUS - - - - - - - - - 459
Gen. CXXII. CANCER - - - - - - - - - 462
Gen. CXXIII. BUBO. - - - - - - - - - - 465
Gen. CXXIV. SARCOMA. *A fleſhy Excreſcence* - 467
Gen. CXXV. VERRUCA. *A Wart* - - - - - 469
Gen. CXXVI. CLAVUS. *A Corn* - - - - - - 470
Gen. CXXVII. LUPIA. *A Cyſt under the Skin* - - 471
Gen. CXXVIII. GANGLION. *A ſoft Tumour on a Tendon* - - - - - - - - - - ib.
Gen. CXXIX. HYDATIS. *An Hydatid* - - - - 473
Gen. CXXX. HYDARTHUS. *A White Swelling* - ib.
Gen. CXXXI. EXOSTOSIS. *A hard Tumour on a Bone* - - - - - - - - - - 474

Claſs IV. LOCALES.

Order VI. *ECTOPIÆ.*

Gen. CXXXII. HERNIA. *A Rupture* - - - - - 478
Sect. I. *Introduction*, with *enumeration* of the *Species* - - - - - - - - - - ib.
Sect. II. Of ENTEROCELE - - - - - - - - 479
Sect. III. Of EPEPLOCELE - - - - - - - 486
Sect. IV. Of GASTROCELE - - - - - - - - 487
Sect. V. Of HEPATOCELE and SPENOCELE - ib.
Sect. VI. Of HYSTEROCELE - - - - - - - 488
Sect. VII. Of CYSTOCELE - - - - - - - - ib.
Sect. VIII. Of ENCEPHALOCELE - - - - - - - 489
Gen. CXXXIII. PROLAPSUS. *A Protruſion* - - - 490
Gen. CXXXIV. LUXATIO. *A Diſlocation* - - - 497

5 DE60

Class IV. LOCALES.

Order VIII. *DIALYSIS.*

PAGE

Gen. CXXXV. VULNUS. *A Wound* - - - - 500
Gen. CXXXVI. ULCUS. *An Ulcer* - - - - - 506
Sect. I. Of *Inflammation* and its several *species* - ib.
Sect. II. Of *Suppuration* - - - - - - - - 509
Sect. III. Of *Ulceration* - - - - - - - - 510
Sect. IV. Of *Granulation* - - - - - - - - 512
Sect. V. Of *general* and *special management* of Ulcers - - - - - - - - - - 514
Gen. CXXXVII. HERPES. *Tettars* - - - - - - 525
Gen. CXXXVIII. TINEA. *A Scald Head* - - - - 529
Gen. CXXXIX. PSORA. *The Itch.* - - - - - - 531
Gen. CXL. FRACTURA. *A Fracture* - - - 532
Gen. CXLI. CARIES. *The destruction of Bones* - 533

A NOSOLOGICAL SYNOPSIS, adapted to the Work 537

5 DE 60

Genus XLIX. *Pertuſſis.*

Chin Cough, or *Hooping Cough.*

THE ſymptoms are convulſive ſtrangulating cough with hooping, relieved by ſpontaneous vomiting. It is contagious.

SECTION I.

OF THE PROXIMATE CAUSE OF HOOPING COUGH.

FROM all the obſervations I have made on this diſeaſe, it appears to be connected with, if not wholly dependant on, the affections of the ſtomach, and to have for its proximate cauſe morbid irritability chiefly of the ſtomach with increaſed action of its mucous glands. Yet ſuch is the correſpondence and conſent between the ſtomach and the lungs, that it is not in all caſes eaſy to determine, in which of the two is the original ſeat of the diſeaſe. In catarrh this conſent has been already noticed, but more particularly in tuſſis ſtomachalis

and in aſthma; and we have occaſion to make the ſame remark in hooping cough.

That in this diſeaſe there is produced a diſtreſſing quantity of viſcid mucus or tough phlegm, we have ocular demonſtration, and evidently ſee, that when the ſtomach has been cleared from this the cough ceaſes for a time.

SECTION II.

OF THE INDICATIONS OF CURE IN HOOPING COUGH.

TAKING therefore morbid irritability chiefly of the ſtomach, with increaſed action of its mucous glands, for the proximate cauſe of chin cough, the indications of cure will be to remove the irritating cauſe, that is, the phlegm, and to diminiſh the morbid irritability of the ſtomach with the increaſed action of the mucous glands, the former by frequent emetics, and the latter by aſtringents, to which may be joined antiſpaſmodics, and the inhalation of *vital air* diluted with atmoſpheric.

℞ Antimon. tartariſat. gr. 3. Aq. Menth. un. 3. Syr. balſ. dr. 2. M. Capt. un. 1 omni horæ quadrante uſque ad vomitionem.

Take

Take tartar emetic three grains; mint water three ounces; balſamic ſyrup two drams: Mix, and take one ounce every quarter of an hour till it vomits.

℞ Cinchon. Rub. un. 2. Aq. font. lb. 3. Coque ad lb. 2. Colaturæ un. 3. adde Tinct. Aſæ fœtid. gtt. 15. Tinct. Opii, gtt. 10. om. 8a. h. s.

Take red bark two ounces, ſpring water three pints; boil it to one quart, and ſtrain. To three ounces of this decoction add tincture aſſa fœtida fifteen drops, liquid laudanum ten drops. To be given three times a day.

It frequently happens where emetics have been omitted, that children, after the hooping-cough, are troubled with *worms*. Theſe may be deſtroyed by calomel, and then the tonic plan muſt be purſued. I had lately a little patient three years and an half old, in the hooping-cough; who, when brought to me, had that morning paſſed one and thirty worms, and in the preceding days twenty-eight, many of which were from ſix to nine inches long. To this little infant I gave two grains of calomel every night, and three grains of jalap the ſucceeding morning. Theſe procured two ſtools in the courſe of the day, brought away three worms, making the whole number ſixty-one, and in ten days perfected a cure of the hooping-cough, without the aſſiſtance of emetics.

Genus L. *Pyrosis.*

WATER-BRASH of Scotland, and WATER-BRASH of the weſt of England, is a copious eructation of a watery inſipid fluid, attended with heart-burn. It frequently recurs, but being attended with no alarming ſymptoms, it has generally been left to nature.

Genus LI. *Dyſenteria.*

Dyſentery.

OF this the ſymptoms are frequent griping ſtools, chiefly mucous, ſometimes mixed with blood and followed by teneſmus. It is commonly attended by pyrexia, and appears to be contagious.

SECTION I.

OF THE PROXIMATE CAUSE OF DYSENTERY.

FROM all the obſervations I have made, I acquieſce in the opinion of Dr. CULLEN reſpecting

the proximate cauſe of this diſeaſe, and have therefore ventured to remove it from the pyrexiæ, and to arrange it under the claſs NEUROSES, in the order SPASMI.

It appears to be a ſpaſmodic conſtriction of the colon induced by local irritation.

By this conſtriction the fæces are retained, and by the action of the abſorbents they become hardened, and therefore increaſe both the irritation and ſpaſm.

In conſequence of this the mucous glands of the inteſtines are excited, either by the immediate action of the hardened fæces, or by conſent to ſupply the mucus, which is hurried on by the quickened periſtaltic motion of the inteſtines, and appears in frequent ſtools.

The ſame irritation, communicated by ſympathy to the heart, quickens the pulſe, but in the extreme arteries of the part affected produces either effuſion of blood or inflammation. This again increaſes irritability, and conſequently ſpaſm.

The ſtimulus applied to any part of the inteſtines being propagated to the rectum, produces the *teneſmus*, that is, a moſt urgent and inceſſant deſire to evacuate the fæces.

That the theory of Dr. CULLEN is well-founded will appear from hence, that when the hardened *ſcybala* are evacuated, the diſeaſe is ſpeedily relieved.

Should it be ſuffered to continue, the villous coat will ſeparate, and be diſcharged mixed with pus

or putrid ſanies, becauſe the acrid matter acts like cantharides, when it brings on inflammation and ſeparates the cuticle, or continuing to act when the vital energy is much diminiſhed, induces ſphacelus. All this agrees with obſervations after death, for the inteſtines have been diſcovered, not only in all the various ſtages of inflammation, of ſupuration, and of gangrene, but with their diameters contracted, and their coats much thickened.

SECTION II.

OF THE REMOTE CAUSES OF DYSENTERY.

THE prediſponent cauſe ſeems, as in the caſe of ſpaſm in general, to be debility and morbid irritability, either general or partial.

The occaſional cauſes may be,

1. *Putrid acrimony generated in the ſyſtem.*

During the protracted heat of ſummer, the determination, as already ſtated in the obſervations on heat and cold, is to the external ſurface: but when cold and damp ſucceed to heat, and when the vital energy is much diminiſhed, the determination is reverſed, the perſpiration is diminiſhed, the urine

urine is increaſed, and the ſecretions both of bile and mucus in the inteſtines are not only increaſed in quantity, but rendered more acrid, and by ſtagnation become putreſcent. Hence ariſe dyſenteries with putrid fevers, and the weakeſt are the firſt to ſuffer.

2. *Putrid infection.*

This, although apparently received into the lungs, ſeems to exert its firſt action on the mucous glands of the inteſtines, as appears by loſs of appetite, ſickneſs, nauſea, vomiting.

In theſe ideas I am confirmed by revolving in my mind what is related by Sir JOHN PRINGLE in his treatiſe on the diſeaſes of the army.

The obſervations, to which I refer, were made in Zealand, and in Brabant, where the country is low and damp, and the ſprings are near to the ſurface of the earth; where the nocturnal fogs are thick and fetid, and where an autumnal ſun exhales putreſcent vapours.

In theſe circumſtances, and in theſe ſituations, the army under his care was frequently attacked by putrid diſeaſes in a variety of forms; more eſpecially when hot days were followed by cold and foggy nights.

Theſe at firſt appeared as tertians and double tertians, with foulneſs of the tongue, bitterneſs in the mouth, nauſea, and deſire of acids, putrid vomiting, and ſenſe of oppreſſion about the ſtomach.

Such were the ſymptoms in the camp on the firſt approach of this diſeaſe. But he ſoon had occaſion to obſerve a connexion between theſe intermittents and the dyſentery, becauſe they who were firſt ſeized with dyſentery uſually eſcaped the fever, if a plentiful evacuation followed; or if any of the ſoldiers were attacked by both diſeaſes, it was alternately, ſo that when the flux began the fever ceaſed, and when the former ſtopped the other inſtantly returned.

Even in the camp it appeared to be contagious, but in the hoſpitals it took the form of a putrid malignant fever; inſomuch that their bedding conveyed infection, and whenever the hoſpitals were crowded, a great mortality enſued.

He had occaſion to remark, when the diſorder came on with the moſt alarming ſymptoms, when the men were ſuddenly ſeized with head-ach, pain in their back, heat and thirſt, delirium, bilious vomitings and bilious ſtools, teneſmus and pain in the region of the colon; the fever remitted on the evacuation of the firſt paſſages of the alimentary canal: yet without artificial evacuations nature made no cures, unleſs when a cholera ſupervened.

Profiting by this obſervation he gave emetics, which were always moſt effectual, when they were powerful enough to procure a plentiful diſcharge from both paſſages. After theſe he gave vitriolated tartar, and perfected his cures by rhubarb and the Peruvian bark, whilſt to ſome patients, more eſpecially

eſpecially if he diſcovered worms, he gave for a doſe, half a dram of rhubarb with twelve grains of calomel, but to other patients, who had merely dyſentery, he gave one dram of rhubarb with five grains of calomel.

As to the nature of the contagion, Sir JOHN PRINGLE had occaſion to obſerve, that it aroſe frequently from dead bodies left unburied in the field of battle; in one inſtance from the rotting of a whale; often from putrid carcaſes of cattle, and from the effluvia of marſhes in the autumn, and not unfrequently from foul ulcers, as well as from crowded jails and hoſpitals.

SECTION III.

OF THE INDICATIONS OF CURE IN DYSENTERY.

THE idea which has been formed of the proximate, as well as of the prediſpoſing and the occaſional cauſe, naturally points out the indications.

1. *To relieve the ſpaſm.*

2. *To cleanſe the alimentary canal from putrid ſordes, from ſcybala, and from every ſpecies of colluvies.*

3. *To*

3. *To ſheath the irritated portions of the colon with mucilaginous ſubſtances.*

4. *To adminiſter tonics with aſtringents, in order to prevent morbid irritability and the recurrence of the ſpaſm.*

Such are the indications. And the effect of medicines, anſwering theſe intentions, confirms our ideas reſpecting the proximate cauſe of this diſeaſe.

The firſt operation of cathartic medicines is to bring away looſe ſtools, but no effectual relief is to be expected till the hardened ſcybala appear. Theſe being once evacuated, all the ſpaſmodic affections are ſpeedily relieved.

To effectuate this purpoſe, it is found neceſſary to have recourſe to opium, and modern experience ſhews, that calomel, ſucceeding the operation of this powerful antiſpaſmodic, is moſt efficacious in cleanſing the alimentary canal from *ſcybala.* Sir JOHN PRINGLE ordered uſually a bolus of rhubarb twenty-five grains, with calomel five grains, to be taken in the morning.

Whilſt I was in Edinburgh I paid particular attention to the practice of Dr. WHYTT in the treatment of this diſeaſe, becauſe he ſeldom failed to cure it, although not ſo ſpeedily as by the modern practice. He began with a powerful emetic; after which he gave every night a bolus of rhubarb half a dram, japonic confection two ſcruples,

liquid

liquid laudanum five and twenty drops. Sometimes inſtead of this he gave rhubarb and calomel, as recommended by Sir JOHN PRINGLE.

When he had in ſome meaſure cleared the bowels, he ordered,

℞ Cinchon. un. 1. Coque ex aqua font. ℔ 4 ad ℔ 2. Cola & adde confect. japon dr. 5. M. Cap. coch. 3. omni 4 a. hora.

Frequently inſtead of this, he ordered a decoction of *ſimarouba* with remarkable ſucceſs. It is a powerful tonic, and at the ſame time promotes both perſpiration and the diſcharge by urine.

℞ Cort. Simaroub. dr. 4. Coque ex aq. font. ℔ 2. ad ℔ 1. Colaturæ capt. un. 3. ſextâ quâque horâ.

The practice of Dr. Cullen was ſomewhat ſingular, yet ſucceſsful. Every evening about five o'clock he gave an emetic of ipecacoan, and in two hours after it one grain of opium, followed in an hour more by five grains of ipecacoan, and then at going to reſt a ſtarch clyſter, with one dram of bark and thirty drops of laudanum.

He ſtrongly recommended ripe fruit, particularly oranges.

My practice, till lately, has been regulated by that of Dr. WHYTT, but in addition to his plan, I have

I have been in the habit of giving a ſheet of white writing-paper diſſolved in about a pint of milk.

This ſheaths the colon, where the villous coat has been abraded, and preventing the local irritation, effectually relieves the ſpaſm.

Dr. WARD for the ſame purpoſe gave an ounce of mutton ſuet diſſolved in milk.

In the place of theſe, but with the ſame intention, Dr. COLLINGWOOD, of Sunderland, has recommended a decoction of the inner bark of the elm, which being extremely glutinous, lubricates the mucous membranes. Of this he adminiſters two table ſpoonfuls after every ſtool, and on a trial of twelve years, recommends it to the public.

For the ſame purpoſe Dr. HERZ, of Berlin, after having cleanſed the alimentary canal, orders *lichen iſlandicus* ſix drams, boiled in a pint of milk, of which three ounces may be taken often.

This lichen grows in elevated regions, and is found in Scotland, Weſtmoreland, Wales, and Woodſtock.

To anſwer the preceding indications, the ſtudent may preſcribe as follows, varying however the preſcriptions as occaſion may require.

For the *Emetic*.

℞ Ipec. gr. 10. Antimon. tart. gr. 2. M. pro emet.

For

For the *Cathartic.*

℞ Rhei, gr. 25. Calomel. gr. 5. M. Cap. mane.

For the *Anodyne* at night.

℞ Ipec. gr. 5. Opii, gr. 1. M. f. pil. horâ ſomni ſumend.

For the *Anodyne Clyſter.*

℞ Enem. de Amylo. Pharm. Eding. un. 8. Tinct. Opii, gtt. 30. M. pro enem. horâ ſomni injiciend.

Or, in caſe of great putreſcency, add to this one dram of Peruvian bark.

Theſe medicines muſt be repeated till the diſorder is removed; then give the following to prevent a relapſe.

℞ Cort. Anguſtur. ſcr. 1. f. pulv. ter in die ſumend.

Or take either the bark of Terra Japonica, or the decoction of Simarouba, as ordered by Dr. Whytt.

Or, ſhould the patient be much exhauſted, you may give,

℞ Infuſ. Cort. Anguſtur. dr. 6. Tincturæ ejuſdem, dr. 4. Pulv. ejuſdem, ſcr. 1. Tinct. Opii, gtt. 30. Tinct. Lavend. Compoſ. gtt. 40. M. c. coch. 3. omni 4a. horâ.

Genus

Genus LII. *Colica.*

Colic.

THE ſymptoms are pain in the lower belly, permanent, with twiſting round the navel; vomiting; and coſtiveneſs.

SECTION I.

OF THE SPECIES OF COLIC.

1. *Spaſmodica* with retraction of the navel, and the muſcles of the abdomen ſo contracted into ſeparate portions, as to reſemble a bag full of balls.

2. *Pictonum*, preceded by ſenſation of weight and uneaſineſs in the abdomen, chiefly about the navel; the colic pain being at firſt ſlight, and not continual, but increaſed after eating; then more ſevere and perpetual, with pain of the arms and back, terminating in palſy.

3. *Stercorea*, after protracted coſtiveneſs.

4. *Accidentalis*, from acrid ſubſtances received into the ſtomach.

5. *Meconialis*,

5. *Meconialis*, in new born infants, from the retention of the *meconium*.

6. *Calloſa*, with ſenſation of ſtricture in ſome part of the inteſtines, and flatulence with pain: coſtiveneſs and diſcharge of liquid ſtools in ſmall quantities.

7. *Calculoſa*, with fixed hardneſs in ſome part of the abdomen, and calculi diſcharged by ſtool.

SECTION II.

OF THE PROXIMATE CAUSE IN COLIC, AND INDICATIONS OF CURE.

THE proximate cauſe is ſpaſmodic ſtricture in ſome part of the alimentary canal, chiefly in the colon, embracing a quantity of hardened fæces, which are the irritating cauſe.

The indications of cure muſt therefore be,

1. *To evacuate the hardened fæces.*

2. *To relieve the ſpaſm.*

The former will be effectually anſwered by giving calomel, to be aſſiſted in its operation by decoction of ſenna, and the latter by opium.

Dr.

Dr. PERCIVAL begins with clyſters, ordering for that purpoſe a ſtrong decoction of poppy heads, with thirty drops of tinctura thebaica, to be repeated till the pain and vomiting are relieved, after which he gives calomel and jalap with ſenna tea.

Let the ſtudent conſult what has been ſaid on the preceding genus.

I would particularly call his attention to one occaſional ſymptom; which is, inverſion of the periſtaltic motion in the alimentary canal, ſo as to diſcharge the ſtercoraceous contents of the inteſtines by the mouth. This conſtitutes the *iliac paſſion*. This illuſtrates what I have delivered on the ſeveral degrees of irritation, with the efforts of nature to relieve herſelf. For one degree of ſtimulus accelerates, another induces ſpaſm, a third inverts the periſtaltic motion, and this either topically, or by conſent, throughout the whole extent of the inteſtinal canal, as in the following diſeaſe.

Genus LIII. *Cholera.*

THE ſymptoms are a purging and vomiting of bile; painful gripings; with ſpaſms of the abdominal muſcles.

It is a diſeaſe chiefly of warm climates, more eſpecially when rain or heavy dews ſucceed a ſcorching ſun.

SECTION

SECTION I.

OF THE CAUSES OF CHOLERA.

The ſtudent may recollect what I have ſaid on the power of *heat*, in the beginning of this work, in relaxing the fibre, and inducing debility with morbid irritability, and of *cold*, as cauſing a determination to the interior ſurfaces and ſecretory organs. This, with relaxation of the veſſels, produces a more abundant ſecretion of bile, which, like all other ſecretions, becomes acrid in proportion to the quantity produced.

The bile thus produced, either accumulates, corrupts, is abſorbed, and diffuſed over the ſyſtem, cauſing, with other ſtimuli in the alimentary canal, the *yellow fever* of the Weſt-Indies; or, from the increaſed irritability of the ſtomach and of the inteſtines, it is rejected by ſpontaneous purging and vomiting, as the moſt natural efforts of nature ſpeedily to relieve herſelf.

Hence we trace the connexion between theſe two diſeaſes, and clearly underſtand why a cholera ſupervening, cures the *yellow fever* of warm climates, or the *bilious autumnal fever* of more northern latitudes.

The ſuperabundance of bile, now acrid and highly ſtimulant, being diffuſed through the whole extent of

the alimentary canal, in addition to the debility induced by heat, increaſes irritability at every inſtant, with all the violent effects commonly produced by exceſſive ſtimuli; which are, as ſtated above, acceleration or inverſion of periſtaltic motion and convulſion rapidly ſucceeding to each other.

As the debility proceeds, the external parts are drawn into conſent, and the ſpaſms are communicated, not only to the abdominal muſcles, but to the extremities.

SECTION II.

OF THE CURE OF CHOLERA.

From what has been ſaid, it will be clear, that the alimentary canal muſt, without loſs of time, be cleared of bile and ſordes.

But then, conſidering the increaſed irritability of the ſtomach and bowels as a chief part of the diſeaſe, the practitioner muſt be extremely cautious how he ventures to preſcribe emetics; and in fact it has been too frequently obſerved, that in this diſeaſe vomiting, excited by emetics, is not eaſily reſtrained. For the ſame reaſon cathartics muſt be carefully avoided.

The moſt ſafe and efficacious mode of treatment is, to dilute with plenty of water-gruel, and emol-

lient

lient clyſters frequently injected; then to exhibit opium with cordial ſtimulants, and to cloſe the whole with bark.

Let the ſtudent conſult what has been delivered on dyſentery and colic, between which and cholera there is an evident connexion.

Genus LIV. *Diarrhœa.*

THE ſymptoms are frequent liquid ſtools, with natural excrement; but not contagious, and ſeldom attended by pyrexia.

SECTION I.

OF THE CAUSES REMOTE AND PROXIMATE OF DIARRHŒA.

IN ſubmiſſion to my maſter, I have left this diſeaſe in the claſs NEUROSES, and in the order SPASMI, where it appears to have been attracted by colic and cholera. Yet reverence and ſubmiſſion to a maſter were not my only motives; for in truth, I knew not where elſe to arrange it, unleſs I had either taken PROFLUVIA for a claſs, which I am not prepared to do, or removed it to the CACHEXIÆ, where under the order of MARCORES it might find a better place.

The proximate cauſe of *Diarrhœa* is, increaſed action of the exhalants and excretories, with a proportionate increaſe in the periſtaltic motion of the inteſtines. The prediſpoſing cauſe is morbid irritability. The occaſional cauſes may be the paſſions of the mind; poiſons; cathartic medicines; the ſtimulus of food, offending either by quantity, by quality, or by fermentation, whether acetous or putrid; ſuppreſſed perſpiration, more eſpecially from cold applied to the feet; and in children, worms and dentition.

SECTION II.

OF THE INDICATIONS OF CURE IN DIARRHŒA.

For the indications of cure we attend,

1. To the occaſional cauſe.

2. To the proximate and prediſpoſing cauſe.

To obviate the occaſional cauſe, we conſider its nature, and if there be acrimony, we endeavour,

1. *To correct it*;

2. *To expel it*;

3. *To dilute it*;

4. *To lubricate the inteſtines by mucilages*;

5. *If*

5. *If the perſpiration is ſuppreſſed, we endeavour to reſtore it;*

6. *If there are worms, they muſt be deſtroyed.*

If there is acidity, as in the caſe of infants, magneſia and teſtaceous powders muſt be given; or, if the exciting cauſe of diarrhœa is putrid ſordes, acids muſt be uſed as occaſion may require.

Emetics ſerve a double purpoſe, as they evacuate offending matters, and as they determine to the ſurface, reſtoring obſtructed perſpiration. With this view, ten grains of ipecacuanha, with one grain of blue vitriol, may be given in the morning.

To clean the inteſtinal canal,

℞ Pulv. Rhei, ℈j. Syr. Cort. Aurant. ʒij. Aq. N. moſchat. ʒſs. Aq. font. ʒj. M. f. H. h. s. s.

That is,

Take rhubarb one ſcruple; ſyrup of orange-peel two drams; nutmeg-water half an ounce; pure water one ounce. To be taken at going to reſt.

Or, if this ſhould not ſpeedily effect a cure, give one grain of ipecacuanha every three or four hours.

To dilute, nothing is better than broth and water gruel alternately.

For ſheathing and protecting the inteſtines from irritation, mucilage of gum arabic has been recommended, but in pure diarrhœa this can be ſeldom needful.

After having cleared the inteſtines, tonics and aſtringents ſhould not be forgotten. Among theſe, in caſes of diarrhœa, the ſimarouba ſtands pre-eminent, being at once tonic, antiſpaſmodic, diaphoretic, and promoting ſleep. The decoction may be made by boiling half an ounce in three pints of water, till it becomes a quart, and of this three or four ounces may be given three times a day.

Where the ſtrength is much reduced, with a quick feeble pulſe, and increaſed irritability in the alimentary canal, the Anguſtura bark combined with opium produces excellent effects. The ſubſequent form comes to us ſtrongly recommended.

℞ Infuſ. Cort. Anguſturæ, ℥vj. Tincturæ ejuſdem, ℥ſs. Pulv. ejuſd. ℈j. Tinct. Opii, gtt. 20. Tinct. Lavend. comp. gtt. 40. M. c. co. iij. o. 4. h.

That is,

Take infuſion of anguſtura bark ſix ounces; tincture of the ſame half an ounce, and powder of the ſame one ſcruple; tincture of opium twenty drops; tincture of lavender forty drops. Of this mixture, three table ſpoonfuls may be given every four hours.

Tanners, when they have diarrhœa, are in the habit of curing it themſelves, without the aid of a phyſician. For this purpoſe they drink about half a pint of their ſtrongeſt ooſe made warm, that is, their ſtrongeſt infuſion of oak bark; and if occaſion ſhould require, they repeat the doſe.

The

The younger ſtudents muſt be careful to diſtinguiſh one caſe, which has been frequently treated as a diarrhœa with emetics, cathartics, demulcents, and aſtringents, not omitting antiſpaſmodics, but all to no effect. Such a caſe I remember was ſubmitted to my friend Dr. BARVIS of Devizes, whoſe attention and ſagacity few circumſtances could eſcape. Every thing had been tried, and the patient was conſidered as incurable, till application was made to him, who at once declared it to be a caſe of conſtipation. He took notice, that, with inceſſant *teneſmus* and irritation in the rectum urging the patient continually to go to ſtool, ſcarcely any thing was voided, but ſmall quantities of liquid, ſometimes however mixed with a few ſcybala, or portions of the hardened excrement. Yet there was no colic, for the pain was referred chiefly to the rectum.

From theſe ſymptoms, the doctor was perſuaded that the conſtipation was in the laſt gut, and by a marrow ſpoon the ſervant extracted ſuch a quantity of indurated fæces, that with the next cathartic the whole was cleared away, when it appeared, that more than a quart meaſure full had blocked up the paſſage.

Genus LV. *Diabetes.*

THE ſymptoms are ſuperabundant diſcharge of urine, which is limpid and ſweetiſh to the taſte; thirſt perpetual; ſkin dry; pulſe quicker and more feeble than in a ſtate of health; emaciation.

SECTION I.

OF THE CAUSES PROXIMATE AND REMOTE OF DIABETES.

IN diabetes we have ſeldom inſtances of ſpaſm; yet there are evident tokens of debility with irritability. A noſologiſt, therefore, may be doubtful where to claſs it; but the practitioner, with whom the rank it holds, is only a ſubordinate conſideration, may be ſatisfied to leave it among thoſe diſeaſes, which have morbid irritability for the prediſponent cauſe. For my own part, I acknowledge freely a ſuſpicion, that, for reaſons to be hereafter mentioned, I ſhould have arranged it under the claſs CACHEXIÆ.

To underſtand the pathology of this diſeaſe, it will be neceſſary firſt to aſcertain ſome facts.

1. The

1. The quantity of fluid diſcharged by urine is, in diabetes, uſually more than has been viſibly received. A patient of Dr. HOMES drank four pints a day, and paſſed from eleven to twelve.

2. Even ſolid food increaſes the urine; yet this moſt frequently exceeds the quantity of meat and drink united. Dr. DOBSON mentions one, who took in, between liquids and ſolids, fourteen pounds a day, and paſſed by urine eight and twenty pounds.

3. The urine of diabetes is ſweet to the taſte, and readily paſſes through the vinous, acetous, and putrid fermentations. It contains much ſugar, and being fermented with yeaſt, makes a liquor reſembling ſmall beer.

4. It is well known, that punch ſometimes paſſes almoſt as ſoon as it is ſwallowed, that aſparagus quickly give a peculiar odour to the urine, that in a very ſhort ſpace of time caſſia renders it almoſt black, and that ſome liquids paſs unchanged.

5. When this, at the commencement of the preſent century, was obſerved by M. MORIN, of the French academy of ſciences, he concluded, that liquids have a ſhorter paſſage to the bladder than by the arteries and the kidneys. To aſcertain the fact, philoſophers have tied ligatures round the ureters of dogs, who have continued to paſs urine as if no ſuch operation had been performed on them. And Baron HALLER has particularly noticed the

production of urine after the kidneys themſelves had been totally deſtroyed.

6. It is well known, that the cutaneous abſorbents imbibe a quantity of moiſture from the atmoſphere. I know a gentleman who after hard exerciſe quickly gains ſome pounds, and Dr. KEIL without exerciſe acquired eighteen ounces in one night.

From theſe and other correſponding facts, the late and much to be lamented Mr. Charles Darwin concluded that the proximate cauſe of *diabetes* is inverted action of the urinary branch of the lymphatics.

This doctrine of the retrograde motion of the abſorbents, when firſt announced, met with ſuch a favourable reception, that it ſeemed to promiſe immortality to the author's name. Every one admired, as we muſt continue to admire, his fertility of genius and vivacity of fancy: yet even at the time his ſyſtem did not eſcape the cenſure of the beſt anatomiſts and experimental phyſiologiſts.

To eſtabliſh his ſyſtem, he either ſuppoſes or aſſerts,

I. That the valves of the abſorbents in ſome diſeaſes may ſuffer their fluids to regurgitate.

But unfortunately for his theory, theſe valves do not perform their valvular action by virtue of their living power, for after death it is equally perfect

as

as during life. Dr. Haighton, with my friend Gimbernat, and many other moſt experienced anatomiſts, aſſure me, that they have frequently, in attempting to make quickſilver paſs contrary to the natural courſe, burſt the ſide of an abſorbent, becauſe its valves would not give way. The author indeed appeals to the authority of baron Haller as affirming, that if mercury, air, or ſuet, are injected into the abſorbents, they will paſs the valves very eaſily, contrary to the natural courſe of their fluids, when the veſſels are a little forcibly diſtended. But Dr. Haighton ſuſpects there is ſome error in the reference, as he finds nothing on this ſubject in the fourth ſection of the third volume, which is the part quoted: but even admitting the quotation to be juſt, the authority of Haller in matters relative to the œconomy of the abſorbent ſyſtem is queſtioned by anatomiſts of the preſent day.

II. That the mouths of lymphatics ſeem to admit water to paſs through them after death the inverted way eaſier than the natural one, ſince an inverted bladder readily lets out the water with which it is filled, as there is no obſtacle at the mouths of theſe veſſels to prevent the regurgitation of their contained fluids.

Now admitting, as the author ſtates, that an inverted bladder lets out water more readily than one not inverted; yet it is merely matter of opinion, whether

whether it paſſes by the abſorbents, or by the interſtitial ſpaces of the cellular ſubſtance.

III. That the valves of the aorta, when ſcirrhous (meaning perhaps oſſified), ſuffer a return of part of the blood into the heart; and for this he produces the authority of Lieutaud.

Of ſuch diſeaſed valves moſt anatomical collections contain inſtances: but here he blends two ideas which ſhould be kept diſtinct; diſeaſed ſtructure and diſeaſed action. That the aortic valves fail in the performance of their office, when their flexibility is diminiſhed, or their figure is deſtroyed, needs no proof; but this, it muſt be remembered, is a diſeaſe of ſtructure, and the effect is ſuch as may be expected from this defect of mechaniſm.

IV. That there are valves in other parts of the body analogous to thoſe of the abſorbent ſyſtem, which are liable, when diſeaſed, to regurgitate their contents, and that thus the upper and lower orifice of the ſtomach are cloſed by valves, which when too great quantity of warm water has been drank, with a deſign to promote vomiting, have ſometimes reſiſted the utmoſt efforts of the abdominal muſcles and diaphragm: yet that the upper valve or cardia, at other times eaſily permits the evacuation of the contents of the ſtomach; whilſt the inferior valve or pylorus permits the bile and

other

other contents of the duodenum to regurgitate into the ſtomach.

But alas! this ſuppoſition is not well founded; for no anatomiſt has ever been able to detect theſe *valves*. At the pylorus there is abſolutely none, and at the cardia there is only a ſmall duplicature of its internal membrane, which can never be miſtaken for a valve, nor in a healthy ſtate does it ever cloſe this entrance to the ſtomach.

V. That the cutaneous abſorbents, excited by their conſent with the urinary branch of the abſorbents, when this has inverted its motion, increaſe the flow of urine in *diabetes*.

This ſeems to be confirmed by an obſervation of Dr. Gregory, who cauſed a diabetic patient to be annointed with oil, after which the flux of urine, to appearance, was diminiſhed: but Dr. Ferriar particularly ſtates, in his late valuable publication, that in two caſes of diabetes, the patients complained of profuſe ſweats at a time when the diſcharge by urine was more conſiderable.

VI. That there is a communication between the abſorbents of the alimentary canal and thoſe of the bladder, as demonſtrated by Hewſon.

But Dr. Haighton aſſures me, that the communication is too minute and ſubtile for any eye excepting that of the imagination, and he believes, that no practical anatomiſt, by injecting the different

parts

parts of this ſyſtem, has hitherto been able to give even probability to this opinion.

That however liquids have a ſhorter paſſage from the ſtomach to the bladder than through the arteries and the kidnies ſeems to be rendered probable, not merely by what has already been ſuggeſted, but from recent obſervations which excite ſuch a ſuſpicion in the mind.

I underſtand that M. Carliſle, an amiable young ſurgeon, who purſues his anatomical reſearches with more than common ardour, has lately made ligatures on the pylorus after having filled the ſtomach of animals with aqueous fluids, by which he has been convinced, upon diſſection, that ſome conſiderable abſorbents, more than have been hitherto diſcovered, paſs immediately from that viſcus, for he found it empty. M. Gimbernat of Madrid, who, when he was a young man, diſſected more bodies than any anatomiſt in Europe, detected veſſels leading from the ſtomach, which he was not able to purſue, but which induced him to believe, that liquids may paſs directly from the ſtomach to the bladder. Under this perſuaſion he has collected a variety of facts, all tending to confirm his opinion on this ſubject,

It has often happened, that on examination of ſtones extracted from the bladder, ſome extraneous body has been detected as the nucleous, which could not have paſſed in the common way of circulation. Some of theſe, as Van Swieten has very

very judiciouſly obſerved, had been introduced by the urethra: but others, I apprehend, are clear from this ſuſpicion.

The poſſibility, therefore, ſtill remains, that chyle may find its way unaltered to the urinary veſſels.

But on the other hand, when we conſider that in *diabetes* the kidnies are morbidly affected; that they are, as Dr. Cullen has remarked, *in a flaccid ſtate*, and, which is more worthy of our notice, that the arteries of the kidneys are in diabetes preternaturally enlarged, particularly thoſe of the cryptæ or minute glands, which ſecrete the urine, as obſerved by M. Cruikſhank; ſhall we not be inclined to think it probable that the fluid of *diabetes* ariſes from ſome remarkable change in the veſſels which uſually ſecrete the urine.

We know that ſecretory organs in different ſtates ſecrete fluids of very different qualities. Thus it is with the glands ſecreting the tears, which are ſometimes acrid and corroſive, and with the ſalivary glands, which under the influence of mercury no longer ſecrete a ſpontaneous fluid. Thus it is with the ſtomach, which by the mere influence of the mind ceaſes for a time to ſecrete a gaſtric fluid fit for digeſtion, in conſequence of which ſymptoms of dyſpepſia immediately enſue: but with the reſtoration of tranquillity there is a reſtoration of the digeſtive powers.

The glands of the breaſt, when cancerous, ſecrete no longer milk, but the moſt offenſive and corroſive

ſive matter; and, not to mention the wonderful alterations in the bile produced under the influence of heat and cold, of poiſons and of the paſſions of the mind, we may remark the more wonderful changes which take place in the diſcharge of ulcers, for this may be either inodorous, thick and yellow, or ichorous, pale, watery, acrid, and offenſive to the noſtrils.

The enlargement of the arteries in the cryptæ of kidneys, ſhew increaſe of action, and the flaccidity of thoſe organs demonſtrate their want of tone.

With ſuch a diſcharge of aqueous fluids by the urinary paſſages, as we obſerve in *diabetes*, it is natural to expect that the cutaneous abſorbents ſhould be excited into energic action by conſent: but, conſidering the occaſional cauſes, which are drunkenneſs and intemperance, and perhaps atonic gout, we have reaſon to conclude that *diabetes* is founded in debility.

Beſides this genuine diabetes, whoſe eſſential character is not merely a præternatural flow of limpid water, but water of a ſweetiſh taſte, and abounding with ſaccharine matter, we have other ſpecies which are purely ſymptomatic: for a profuſe diſcharge of urine may be produced by fear, by the application of cold, by hyſterical, febrile, and gouty affections, or by ligatures on the veſſels of the ſpleen. Hence are derived the *diabetes inſipidus* of Cullen, and *diabetes hyſtericus*, D. *arthiriticus*, D. *febricoſus*, and D. *artificialis*, of Sauvage.

SECTION

SECTION II.

OF THE INDICATIONS OF CURE.

THIS, taken from the predisponent cause, is simply to obviate relaxation, debility, and morbid irritability, which may be accomplished by tonics and astringents, by bark, steel and myrrh, with a generous diet, cool air, and constant exercise.

Dr. GRIFFITH recommended the following:

℞ Myrrh. dr. 1. solve terendo in mortario cum Aq. Alex. simp. un. 7. Aq. N. M. dr. 4. Tinct. Cort. Per. dr. 6. adde Sal Absinth. scr. 2. Sal Martis, gr. 16. Sach. alb. scr. 2. M. c. cochl. 4: ter in die.

That is,

Take myrrh one dram, to be triturated with simple alexiterial water seven ounces; nutmeg-water half an ounce; tincture of peruvian bark six drams; salt of wormwood two scruples; salt of steel sixteen grains; sugar two scruples. Dose four spoonfuls thrice a day.

The ingenious Dr. BROCKLESBY ordered the flores martiales, with sea bathing; and when his patient, after a cure, relapsed, he gave the following:

℞ Flor. Chamœmel. gr. 25. Pulv. Aromat. gr. 3. Rhei, gr. 2. M. c. ter in die.

With this he gave alum whey half a pint twice a day.

Genus LVI. *Hyſteria.*

THE pathognomic ſymptoms are, a grumbling noiſe in the belly followed by *globus hyſtericus*, or a ball aſcending to the throat with a ſenſe of ſuffocation; ſtupor; inſenſibility; convulſions; laughing and crying without viſible occaſion; ſleep interrupted by ſighs, and attended by a rumbling in the bowels.

SECTION I.

OF THE ATTENDANT SYMPTOMS.

HOFFMANN calls hyſteric affection a cohort of diſeaſes; SYDENHAM compares it, for the infinite variety of its forms, to Proteus, and for the mutability of its appearances, to a chameleon.

Among the moſt diſtreſſing ſymptoms may be reckoned a pungent pain in ſome part of the head, called *clavus hyſtericus*, attended by vomiting, cough, colic, imitating iliac paſſion, and terminating

ng by ſuffuſion of bile; diarrhœa; ſtrangury; ſpaſms; nephritic pain; ſwelling of the ancles, chiefly in the morning and without pitting; pains in the back and in the teeth; coldneſs of the extremities; flatulence, laſſitude, and palpitations.

We obſerve, likewiſe, remarkable ſenſibility and irritability of mind; ſpirits elated, depreſſed, and variable, independent of viſible occaſions, with a diſpoſition equally to laugh or to cry upon the moſt trifling excitements; ridiculous fancies; frequent, ſudden, and profuſe diſcharge of *limpid urine*, more eſpecially previous to the paroxyſm.

When this diſorder terminates fatally, it is, like as in epilepſy, by the apoplectic ſtroke. But commonly the paroxyſm quiets for a time all ſpaſmodic ſymptoms, leaving the patient languid and univerſally relaxed.

SECTION II.

OF THE PREDISPONENT CAUSE OF HYSTERIA.

THE perſons moſt liable to this diſeaſe are females, from the time of puberty to the age of thirty-five, unmarried women, and young widows, chiefly thoſe of the ſanguine temperament; of a relaxed habit; of great ſenſibility; and of an irritable fibre; more eſpecially after profuſe evacuations,

whether ſanguine or ſerous; the indolent, and thoſe who are exhauſted by either long protracted fevers or habits of intemperance; and ſuch alſo in whom the uterine hæmorrhage is unſeaſonably ſtopped, or habitually obſtructed.

Can we therefore heſitate to aſſign as the predisponent cauſe, debility with morbid irritability?

SECTION III.

OF THE OCCASSIONAL CAUSES OF HYSTERIA.

1. *Violent excitement in the brain.*

   a. By the ſenſations of pain or pleaſure.

   b. By the paſſions of joy, grief, anger, fear, ſurpriſe.

   c. By diſtenſion of the blood veſſels.

2. *Irritation.*

   a. In the ſtomach.

   b. In the uterine veſſels.

   c. In the ovaries and ſpermatic veſſels.

   d. In the olfactory nerves.

SECTION IV.

OF THE PROXIMATE CAUSE OF HYSTERIA.

SYDENHAM, for the proximate cauſe, aſſigns an *ataxy*, or diſorder of the animal ſpirits, that is, vehement action in particular parts of the ſyſtem, which being endued with exquiſite ſenſibility, are thereby affected with pain and ſpaſm, whilſt the other parts ſuffer equally from defect of nervous energy; and by this unequal diſtribution all the functions are diſturbed.

But Dr. CULLEN conſiders the chief part of the proximate cauſe to be mobility of the ſyſtem, depending generally on its plethoric ſtate. This opinion ſeems to confound the proximate with the remote cauſes: for debility with irritability are the prediſponent cauſe, and the *ſtimulus of diſtenſion* can be only an occaſional cauſe of this affection.

To me it appears, that the proximate cauſe is nearly the ſame as in epilepſy, with which the hyſteric paroxyſm has a remarkable affinity.

HOFFMANN has left us two valuable caſes, in which the two diſeaſes were combined; and Dr. WOODFORD has favoured me with an account of Mr. Palmer, a ſurgeon at Trowbridge, who after either intoxication, or agitation of mind,

was uſually ſeized with violent convulſions, rolling of his eyes, frothing at the mouth, complete inſenſibility, followed by deep ſleep: yet theſe fits were always attended by violent laughter and globus hyſtericus.

SECTION V.

OF HYSTERIA AS DISTINGUISHED FROM HYPOCHONDRIASIS.

THE older phyſicians, Boerhaave, Sydenham, Van Swieten, with the ſagacious Whytt, conſider theſe diſeaſes to be the ſame: and even Hoffmann, notwithſtanding his efforts to diſtinguiſh, yet confounds them; for of fourteen caſes, ſuppoſed by him to have been hypochondriaſis, ſome are evidently hyſteria.

This confuſion is the more remarkable, becauſe in the firſt place Dr. WHYTT, although he declares theſe affections to be one, yet moſt clearly diſtinguiſhes them, ſtating *hyſteria* to depend on morbid irritability, and *hypochondriaſis* on torpor, as appears by his ſecond chapter on nervous diſorders: and HOFFMANN, in his cautions and practical directions ſect. iii, makes the ſame accurate diſtinction.

It is to Dr. CULLEN we are indebted for the juſt arrangement of theſe diſeaſes, which have nothing in common, but dyſpepſia, flatulence, and debility;

bility; yet even in this they differ, for in one we have debility with irritability, in the other the debility of torpor.

SECTION VI.

OF THE INDICATIONS OF CURE IN HYSTERIA.

THESE are, 1ſt, to remove thoſe prediſponent cauſes in the body, which render it peculiarly liable to hyſteria.

2. To remove or correct the occaſional cauſes, which, eſpecially in ſuch as are prediſpoſed, produce the numerous train of hyſteric ſymptoms already mentioned.

The firſt intention may be anſwered by bitters, bark, ſteel, a generous diet, cool air, cold bathing, regular horſe exercíſe, and agreeable amuſement.

For bitters we may take myrrh, gentian, centaury, orange peel, or quaſſia. To the infuſion of theſe may be added, caſſia lignea as an uſeful aromatic; ſteel, which is the moſt powerful remedy, may be given as recommended by SYDENHAM, in filings, from five grains to fifteen, twice a day; or the celebrated preſcription of Dr. GRIFFITH may be here advantageouſly adopted.

℞ Myrrh. ſcr. 2½, ſolve terendo in mortario c. Aq. Menth. un. 4. Sp. Cinnam. dr. 4. adde Kali, gr. 24. Ferri vitriolat. gr. 10. Syr. s. dr. 1. M. f. H. 4. quarum cap. unum 6a. quaque horâ.

That is,

Take myrrh, two ſcruples and an half, triturated with mint water four ounces; ſpirit of cinnamon half an ounce; ſalt of wormwood twenty-four grains; green vitriol ten grains; ſyrup of ſugar one dram. Make four draughts, of which take one every ſix hours.

This venerable doctor relates the caſe of a young lady, tender, delicate, hyſterical, who ſcarcely ſlept; hurried by opiates and diſtreſſed by fœtid medicines, receiving no relief from bark and cordials, who had frequently profuſe ſweats, which laſted for twelve hours at leaſt. This young lady voided much pale urine; had great thirſt; no appetite; ſpaſmodic retchings with pulſe quick and low. In addition to theſe ſymptoms of debility and irritability ſhe was much inclined to faint; yet by the foregoing preparation of myrrh and ſteel, ſhe was ſoon reſtored to health.

In caſes of hyſteric affection Dr. WHYTT depended chiefly on the bark with gentian, and from him I took my ideas in the treatment of hyſteria, having obſerved that his practice was ſucceſsful. The inſtructions delivered in his public lectures, and the information with which he honoured me in private converſation, are the ſame as have been communicated

cated in his treatiſe on this ſubject, a work which is ineſtimable for ſtrong reaſoning, and for facts clearly ſtated. He recommends the following:

℞ Cinchonæ, un. 4. Gentian. Cort. Aurant. aa. un. 1½. Sp. Vin. gal. ℔4. Digere per 6 dias. Capt. dr. 4 bis die.

That is,

Take Peruvian bark four ounces; gentian and orange peel of each one ounce and an half; brandy two quarts; digeſt for ſix days. Take half an ounce twice a day, and continue it for months.

With the ſame intention the learned and ingenious Dr. LETTSOM recommends white vitriol with aromatic bitter.

℞ Ligni Quaſſiæ, dr. ½. Aq. font. ebul. un. 6. Digere, cola, & hujus colaturæ un. 1½, adde Zinci vitriolati, gr. ſs. ad gr. 4. Tinct. Cardam. dr. 1. Teſt. Oſtr. p. p. ſcr. 1. M. f. H. ter de die ſumend.

That is,

Take quaſſia half a dram; boiling water ſix ounces; digeſt; ſtrain; and to one ounce and an half of this add white vitriol from half a grain to four grains; tincture of cardamoms one dram; oyſter-ſhell one ſcruple. Mix. To be repeated three-times a day.

A generous diet is eſſential in every caſe where debility and irritability prevail.

SYDENHAM

SYDENHAM relates that he was ſent for to a convaleſcent, who having been, during a fever, ſeverely handled by his phyſician, and, after exceſſive evacuations, forbid the uſe of animal food; became ſo enervated, that without viſible occaſions, he frequently, as if overwhelmed with grief, ſhed floods of tears attended by deep ſighs, and ſobbing, which bordered on convulſions. SYDENHAM immediately ordered him a fowl and wine, with ſuch an excellent effect, that the convulſive weeping never more returned.

One caution however is needful. Let hyſteric patients be extremely careful not to overload the ſtomach. They muſt eat little and often.

If the ſtudent recollects, what I have ſaid upon digeſtion, he will ſee the reaſon for this caution, a caution the more needful becauſe ſuch patients are almoſt univerſally inclined to tranſgreſs in this reſpect.

The conſequence of this tranſgreſſion is flatulence, with ſpaſmodic affection in the alimentary canal, which, if neglected, will draw other parts of the ſyſtem into conſent.

When I was in London laſt winter, I had the pleaſure of meeting, at the houſe of my friend Dr. Thornton, an amiable young lady, who ſpoke with rapture, of the benefits ſhe had received from the *vital air*. Since her arrival from Italy, which was two years ago, in the viciſſitudes of this climate, ſhe early experienced a conſiderable diminution of ſtrength, appetite, and ſpirits. She took in

conſequence

conſequence a vaſt quantity of bark, ſteel, and other tonics, under various phyſicians, but with no alleviation of the ſymptoms. When ſhe became a patient to Dr. THORNTON, ſhe was ſo weak, as ſcarcely to be able to walk acroſs the room; ſhe was ſubject to hyſteric fits, which occurred ſeldom leſs than three or four times each day; and the leaſt angry word, or ſlighteſt contradiction, excited a flood of tears. Her feet were cold as ice; but after taking food, more eſpecially if ſhe uſed an acid, ſhe had heat and fluſhings of the face, while the reſt of the body remained nearly as cold as her extremities.

Having the greateſt averſion to every kind of medicine, ſhe made trial only of the vital air, except an occaſional aperient draught of rhubarb and ſal polychreſt in ſome peppermint water. In a fortnight, by the daily inhalation of vital air mixed with atmoſpheric, the hyſteric fits returned no more; her appetite improved; her ſpirits roſe; cold was leſs ſeverely felt; and her ſtrength was ſo far increaſed, that ſhe was able, after a fortnight, to walk near a mile, to attend on Dr. Thornton. If at any time ſhe left off for a few days the inhalation of the vital air, ſhe experienced the moſt uncomfortable ſenſation of cold, and leſs muſcular powers, with pain in her ſtomach; all which ſymptoms were removed as often as ſhe recurred to the uſe of vital air. She inhaled the modified air during the whole of the laſt ſevere winter, continued it at intervals in the ſpring, uſed the ſhower-bath in the ſummer, and in the autumn ſhe was in excellent health.

I took occaſion to remark, at the concluſion of the caſe of bilious autumnal fever, that when the typhus was completely cured, nothing remained but *hyſteric affection*, and that a remarkable connexion was

was to be obſerved between theſe two diſeaſes, ſuch as may direct our practice in the treatment of them both.

In typhus debility and irritability are ſeen in the extreme; hence the impatience of light and of ſound, and the quick ſenſibility of both the taſte and ſmell. This irritability is not however confined to the organs of ſenſe: it affects the mind. It is manifeſt likewiſe in the pulſe, which is quick, weak, and ſmall.

Theſe, but not in the ſame degree, are the ſymptoms of hyſteria. In both we find the patient equally diſpoſed to laugh or cry.

In both diſeaſes, the indications are to correct the morbid irritability by aſtringents and by tonics, and in both the effect upon the pulſe is ſimilar, this being rendered ſlower by animal food, by opium, and by wine.

When the typhus fever, in the caſe already ſtated, was ſucceeded by *hyſteric affection*, the cure was affected by Dr. THORNTON in the following very judicious manner:

℞ Cinchonæ, ſcr. 2. Serp. Virg. ſcr. 1. Caſcaril. gr. 10. M. f. Pulv. 2 a. q. h. s. ſuperbibendo Vin. Rub. un. 2.

That is,

Take Peruvian bark two ſcruples; Virginian ſnake root one ſcruple; Caſcarilla bark ten grains; every two hours, drinking with it a glaſs of port wine.

This promoted a gentle perſpiration at the ſame time that it increaſed the power of life, as appeared in the firſt inſtance by the pulſe, which gradually became ſtronger and leſs frequent.

In a few days the ſnakeroot was omitted, and in its place was ſubſtituted the ruſt of iron in this form.

℞ Cinchon. un. 2. Chamæmel, un. 1½. Fer. Rubig. ſcr. 1. Syr. ſymp. q. s. f. Elect. c. c. M. N. M. 4a. q. h.

That is,

Take Peruvian bark two ounces; Chamamile flowers an ounce and an half; ruſt of iron one ſcruple; ſyrup a ſufficient quantity to make an electuary, of which take the quantity of a nutmeg every four hours.

To keep the body ſoluble, *butter-milk* was given in the evening, which aſſiſted likewiſe to procure refreſhing ſleep.

Particular care was taken not to overload the ſtomach with food, and for this purpoſe it was frequently exhibited in ſmall quantities, but never till the appetite was keen. By this conduct, the gaſtric juice, being always ready, and ſufficiently abundant to prevent fermentation and the evolution of air, whilſt at the ſame time it acted as a ſolvent, nutrition made a rapid progreſs, and flatulence was totally avoided.

All

All his nouriſhment was given him by weight and meaſure, and ſo regular was the proceſs of digeſtion, that Dr. THORNTON knew, preciſely by the clock, when his patient would awake and call for food.

If nouriſhment was not immediately at hand, the genial warmth and moiſture of his extremities was ſucceeded by dryneſs in the palms and coldneſs in the limbs, which ſymptoms were ſpeedily removed by either wine or food. Theſe never failed to produce a univerſal glow and gentle perſpiration.

It was likewiſe remarked, that when at any time there was irritation in the rectum, with teneſmus and colliquative ſtools, theſe ſymptoms were inſtantly relieved by food and wine.

In hyſteria, the ſecond indication of cure is, to remove the occaſional cauſes.

If the irritation be from indigeſted food, bile and viſcid mucus in the firſt paſſages; theſe muſt be removed by emetics, which ſhould be taken dry; for warm liquids relax the fibre and increaſe debility. One grain of blue vitriol and two of tartarized antimony may be given early in the morning, and muſt be frequently repeated.

To cleanſe the bowels, you may order four or five grains of rhubarb, before breakfaſt and dinner, with a double doſe at night, always remembering to adminiſter tonics after evacuants.

Hoffmann on this ſubject ſays, experientiâ ducti aſſeveramus,

aſſeveramus, primam regionem, quæ vitioſorum humorum colluvie plerumque valde repleta eſt, accommodatis remediis eſſe expurgandam.

And Sydenham univerſally began his curative proceſs by three or four cathartics, before he exhibited the ſteel and tonics.

I muſt here requeſt the ſtudent to conſult the caſe of the young woman mentioned by Dr. Whytt, in chap. viii. ſect. ii. p. 469, of his Treatiſe on Nervous Diſeaſes.

July 20. She was ſeized with violent convulſions, followed by ſyncope, and returning from 12 to 18 times every day on hearing the leaſt noiſe, even of a tea-cup, or the opening of a door; yet between the fits ſhe was uncommonly cheerful and jocoſe. After having tried in vain all that muſk, camphor, caſtor, aſſa fœtida, and laudanum, could do for her, ſhe took bark and valerian. Soon after this ſhe was ſeized with ſevere *aſthmatic* fits, which together with the faintings and convulſions often made the number of paroxyſms amount to 30 in a day.

Auguſt 9. She took an emetic, threw up much bile, and eſcaped her fits. This was repeated nearly every other day with ſimilar ſucceſs, and by following this proceſs every other morning, with a ſmall doſe of elexir ſacrum ſometimes at night, before the beginning of September ſhe was perfectly recovered.

Should there be much tough phlegm or viſcid mu-

cus

cus in the alimentary canal, you may preſcribe lime water three times a day, in addition to the emetics and moderate cathartics.

As for opium, camphor, caſtor, muſk, and aſa fœtida, ſo frequently recommended as antiſpaſmodics, they are merely palliative, and to be reſorted to on the moſt urgent caſes of diſtreſs, ſuch as violent hyſteric *colic*, in which Dr. Whytt uſually ordered a clyſter, with ſeventy or eighty drops of laudanum, that by favour of this opiate ſome pills of aloes and calomel might be thrown in.

In ordinary caſes of *flatulence*, with coſtiveneſs, he combined aſſa fœtida with aloes and ſteel.

℞ Aſæ fœtid. dr. 2. Aloe Soc. Ferri. Vitriolat. Zinzib. aa. dr. 1. Elix. proprieſ. q. s. ut fiant Pill. gr. 4. c. c. 3. o. n.

Take aſa fœtida two drams. Socotrine aloes, ſalt of ſteel, and ginger, each one dram. Elixir proprietatis a ſufficient quantity. Make pills of four grains each, and take three of theſe every night.

For the ſalt of ſteel, I uſually ſubſtitute ſteel filings, and for the aloes I order rhubarb.

Many phyſicians are fond of bleeding in ſpaſmodic affections, and it frequently relieves the patient; but then it ſhould always be remembered,

1. That plethora implies a laxity of the ſolids, and therefore ſome debility in the moving fibres.

2. That

2d. That loſs of blood brings on debility, and being repeated ultimately increaſes plethora.

Theſe propoſitions have been demonſtrated by Dr. Cullen. But in addition to theſe, I muſt obſerve, that by frequent bleeding, the moſt moderate diſtention, ſuch is the force of habit, becomes a powerful ſtimulus and produces ſpaſm.

It is remarkable that parrots, if highly fed, not having exerciſe in proportion to their food, are apt to ſuffer by the diſtention of their plumage. To relieve themſelves, they pluck out the moſt luxuriant feathers. Others quickly ſupply their place, and in ſucceſſion are deſtroyed, till the ſtimulus of even the ſmalleſt feathers become intolerable, and are plucked out as ſoon as they appear.

This reaſoning might be extended, for the ſame principle prevails in a variety of caſes intereſting as well to the moraliſt as to the medical practitioner.

A venerable profeſſor of Edinburgh, recommending veneſection, mentioned to his pupils, as an example of the facility with which the body creates new blood, the caſe of a lady, whom he bled more than an hundred times in the ſpace of three years for ſpaſmodic affections. Yet he confeſſed that the laxity of the ſolids, and the conſequent morbid irritability of the moving fibre increaſed daily, in proportion to the loſs of blood.

SYDENHAM bled once, and then having cleanſed

the alimentary canal, placed his whole dependance on tonics, aſtringents, pure air, and conſtant exerciſe.

Inſtead therefore of repeated bleedings, ſhould there be diſtended veins, a florid countenance, a ſtrong pulſe with vertigo and dyſpnœa, it will be needful to adviſe more exerciſe and a leſs nutritious regimen than uſual.

Should hyſterical affections be induced by worms, theſe muſt be deſtroyed by anthelmintics; after which the tonic plan muſt be purſued.

When atonic gout, amenorrhœa, or fluor albus, are the occaſional cauſes of hyſteria, the attention muſt be turned to what has been ſaid on thoſe primary diſeaſes.

In the *hyſteria libidinoſa*, it will be neceſſary to obviate morbid irritability by tonics, aſtringents, the cold bath, cool air, and conſtant exerciſe: he will give wine and animal food, but in moderation, and will forbid the uſe of ſpices with high ſeaſoned diſhes. The patient muſt be cautioned to avoid crowded aſſemblies and hot rooms.

So much for the prediſponent cauſe.

The occaſional cauſes call for more particular attention. Theſe are commonly mental excitements by improper converſation or by books. Such therefore muſt be carefully avoided; and in their place muſt be ſubſtituted whatever can agreeably occupy the mind and not inflame the imagination.

Solitude

Solitude muſt be ſtrictly forbidden, and a change of ſcene reſpecting ſociety, reſidence, and uſual haunts, muſt be ſtrongly recommended. This may moſt effectually be obtained by travelling, which implies inceſſant change of company, of place, of air, with unremitting exerciſe both of body and of mind.

By theſe means the aſſociated ideas and excitements will be changed, bad habits will be broken; accumulated irritability will be expended; mental and corporeal ſtrength will ſpeedily return; and the humiliating diſeaſe in queſtion, will no longer cauſe diſtreſs.

I have frequently obſerved, with pity, this affection in the ſouth of Spain, and have known it moſt abſurdly treated by the confeſſors, who ſhould have been the laſt conſulted. Theſe blind leaders of the blind, inſtead of committing their tender charge to the care of the phyſician, recommended every thing which could confirm the evil. They charged guilt, where no guilt exiſted; they increaſed diſtreſs of mind, and they impoſed penance; all tending to induce debility with irritability; to rivet the attention, which ought to have been diverted; to inflame the imagination; and to render thoſe affections permanent, which, if left unnoticed, would have been tranſient as the vernal breeze.

Genus LVII. *Hydrophobia.*

Canine Madneſs.

THE characteriſtic ſymptom is a dread of water as inducing painful convulſions of the pharynx.

We have a very accurate deſcription of this diſeaſe by Dr. WOLF, in five caſes of perſons who died of this dreadful diſorder. The eye, as in typhus fever, is impatient of the leaſt light; any bright colour creates uneaſineſs; the mind is very irritable; the beſt friends are diſliked. It is remarkable that the lint, or other dreſſings, when taken off diſcover a *black* ſurface, even though the wound may diſcharge good pus; the fauces have no appearance of redneſs; the face, which at firſt is pale, becomes brown, and during each ſpaſmodic attack turns almoſt quite black; the lips are extremely livid; as the diſeaſe advances each paroxyſm is leſs violent; the patient has intervals of reaſon; the dread of ſtrangulation from water goes off; the pulſe becomes weak, quick, and fluttering; and the body feels remarkably cold; he then compoſes himſelf as it were to ſleep, and expires. Upon diſſection there is not to be found the leaſt trace of inflammation.

From

From this appearance of things, have we not reaſon to expect ſome advantage from the inhalation of *vital air?* Opium, camphor, muſk, and ſubmerſion, have from repeated trials juſtly loſt their reputation in this fatal diſeaſe.

M. MATHEU, after bleeding and purging, excites as ſoon as poſſible ſalivation. He ſays, "the "hydrophobia yields, as it were, by enchantment, "when the ſalivation appears; and it muſt be kept "up according to the degree of the diſeaſe and "the ſtrength of the patient." The illuſtrious SAUVAGE, ſpeaking of mercury, declares, "After "many enquiries, I know not whether mercury has "ever failed, even when the hydrophobia had com-"menced." It may be ſaid, that mercury has been adminiſtered in ſome caſes in England without advantage; but as far as I have read, it has been conſtantly in ſuch caſes accompanied with muſk, bleeding, opium, or camphor. But whether in this alarming diſorder it be better to *oxygenate* the blood or not when the diſeaſe has taken place, as prevention is always better than cure, it ſhould occupy moſt of our attention.

When the contagion of a putrid fever is taken by the ſaliva into the ſtomach and bowels, which is its conſtant road, if the patient, the moment he finds himſelf attacked with a ſenſe of chilline ſs, loſs of appetite, and an unpleaſant taſte in his mouth, has recourſe to two emetics at proper intervals, and after the operation of the firſt emetic, takes a ca-

thartic, he has certainly got rid of the infection: in the ſame manner, even after three days, or perhaps a week, if the part bitten by the dog be cut out with the knife, the danger is eſcaped. But ſometimes it will happen that the patient will not ſubmit to this operation, or to the application of the lunar cauſtic, which perhaps may be preferable to the knife, and it then becomes an object of enquiry, what next ſhould be done? This was the caſe three years ago. Five men were bitten by a dog ſuppoſed to be mad, and which was ſhot. The village doctor, who knew in this diſeaſe nothing beyond the knife, finding his patients refuſe the operation, had recourſe to Dr. THORNTON for his advice. This phyſician recommended the application of hot vinegar ſharpened with vitriolic acid, the wounds being firſt ſcarified, and the events turned out favourable. Are the mineral and vegetable acids correctors of this poiſon? Or in theſe five caſes did the cloth prevent the inſertion of the poiſon? In this age of inveſtigation this intereſting queſtion will, in all probability, be ſoon fully aſcertained.

Claſs II. NEUROSES. Order IV. VESANIÆ.

Judgment impaired without either Coma or Pyrexia.

IN this order Dr. CULLEN, has enumerated four genera, *Oneirodynia*, *Melancholia*, *Mania*, and *Amentia*.

Genus LVIII. ONEIRODYNIA.

Incubus, or *Night-Mare*.

THE pathognomic ſymptom is, vehement or diſtreſſing imaginations during ſleep.

INTRODUCTION.

THE difficulties attending methodical arrangement muſt here be pleaded as an excuſe for giving oneirodynia a place with the veſaniæ: yet this diſeaſe, I truſt, will throw light on others, in the front of which it ſtands.

SECTION I.

OF THE SPECIES OF ONEIRODYNIA WITH SYNONIMA.

Dr. Cullen has two ſpecies.

I. *Oneirodynia gravans*, with a ſenſe of weight and preſſure on the cheſt.

II. *Oneirodynia activa*, exciting to various motions, and more particularly to walk.

I. Oneirodynia gravans is the common *incubus* or *night-mare*.

This, by Sauvage, is called *ephialtes*, and is diſtinguiſhed by him into ſix ſpecies.

1. *Ephialtes plethorica*. 2. *Ephialtes ſtomachica*. 3. *Ephialtes ex hydrocephalo*. 4. *Ephialtes verminoſa*. 5. *Ephialtes tertianaria*. 6. *Ephialtes hypochondriaca*. But his ephialtes tertianaria taken from Foreſtus, although attended with peculiar ſymptoms, belongs to one of his preceding ſpecies.

Etmuller, who had treated judiciouſly of incubus, makes two ſpecies only. 1. *Incubus accidentalis*. 2. *Incubus habitualis*.

II. Oneiro-

II. ONEIRODYNIA ACTIVA is the *Somnambuliſmus* of Sauvage, which he conſiders as a genus and divides into two ſpecies.

1. *Somnambuliſmus vulgaris.*

In this the patients may be awaked. It admits, however, of a diſtinction, for ſome never leave their beds, but bawl and talk, and by their geſtures ſeem to be defending themſelves from thieves. Others leap from their beds, put on their clothes, kindle a light, ſeek for the key, unlock the door, wander far from home, avoid oppoſing obſtacles, paſs over narrow bridges, or, by ſwimming acroſs the ſtreams, return to the houſe, undreſs and go to bed again, unconſcious of all that paſſed.

2. *Somnambuliſmus Catalepticus.*

Of this ſpecies, wherein active night-mare is combined with catalepſy, ſeveral inſtances have been recorded. Among theſe, Sauvage relates the caſe of a married woman, who was committed to his care. This lady at the time of menſtruation, being inſulted by a peaſant, ſuddenly loſt her ſenſes and walked about muttering, talking and diſcovering by geſtures the reſentment of her mind. When the ſurgeon entered the room, ſhe flew at him in a rage, but ſoon after was engaged in purſuing her ſhadow on the wall: yet ſhe neither ſaw nor heard her huſband, when he ſpoke to her, nor gave any ſigns of feeling, although punctured with a pin.

During the paroxyſm her fingers, hands, and arms, retained the poſitions in which they were placed by the obſervers. Theſe fits frequently returned for many months, whenever her mind was in the leaſt diſturbed, and laſted commonly from half an hour to an hour. They were at laſt relieved by change of ſcene, amuſements, and conſtant exerciſe.

SECTION II.

OF THE CAUSES REMOTE AND PROXIMATE OF ONEIRODYNIA GRAVANS.

The prediſponent cauſe is, beyond a doubt, debility, for not the robuſt, not men of a rigid fibre, but the relaxed and irritable, are moſt liable to theſe complaints.

The occaſional cauſes may be,

1. Indigeſted ſordes in the ſtomach, more eſpecially if the perſon ſleeps upon his back. 2. Ebriety, whether from opium or fermented liquors. 3. Viſcid mucus. 4. Worms. 5. Obſtructed catamenia. 6. Heat with unuſual weight of clothes. 7. Hydrocephalus internus. 8. Mental irritation ariſing from anger, terror, and diſguſt, or from any other paſſion excited in the day, and recurring to the imagination during the time of ſleep.

For

For the proximate cauſe, Hoffmann aſſigns ſtagnation of blood in the veſſels of the lungs during ſleep, and with this the Pathology of Etmuller ſubſtantially agrees, for he attributes *incubus* to defective reſpiration, whether ariſing from diſtention of the ſtomach, which prevents the free deſcent of the diaphragm, or from an affection either paralytic or ſympathetic, and ſpaſmodic of the nerves, which ſerve for reſpiration.

To me, agreeable to this opinion of Etmuller, it appears that the proximate cauſe of *oneirodinia gravans* is ſpaſmodic conſtriction of the lungs induced by ſome irritation in the ſyſtem. Hence the tremor with the ſenſe of laſſitude. Hence alſo the violent and rapid vibration of the diaphragm, all which remain for ſome time, after every other ſymptom has ceaſed with ſleep.

Some practitioners imagine, that a loaded and diſtended ſtomach, preſſing on the aorta in its deſcent, ſends the blood too copiouſly to the head; but Dr. Whytt was clearly of opinion, that it originated in nervous irritation, and his doctrine is confirmed by a conſideration both of the occaſional cauſes and of the perſons moſt liable to this complaint. This ſubject however will be reſumed when I come to treat of mania.

Before we attempt to inveſtigate the cauſe of *oneirodynia activa*, or even hazard a conjecture, it will be proper to examine the brain, and to aſcertain, if poſſible, the proximate cauſe of ſleep and dreams.

SECTION

SECTION III.

OF THE BRAIN.

THIS wonderful compages; this ſource of ſympathy and bond of union to the whole machine; this centre of ſenſation, thought, volition; this repoſitory of conſciouſneſs and ſupport of memory; this field, in which imagination ranges unreſtrained; this ſanctuary of hope and fear; this reſidence of reaſon; this microcoſm; this manſion of an immortal ſpirit; demands particular attention.

We obſerve it placed in the moſt elevated region of the body, as in a citadel, defended by the arms and covered with abundant caution, by a vaſt variety of tunics. Externally we ſee a garment of hair; under this a thick tough ſkin, with a ſubjacent membrane; and then arrive at the cranium, which anſwers the purpoſe of a wall. Within we find the brain inveſted by its meninges, the dura and the pia mater, with the tunica arachnoides interpoſed between them. Thus protected, it is preſerved, not only from wounds and bruiſes, but, which is of the laſt importance, from external preſſure.

The brain is the part firſt formed, and that from which the heart and arteries, the ſtomach, the abſorbents,

ſorbents, the muſcles, and the bones originate. Some accurate obſervers with Malphigi, have diſtinctly traced this progreſs in the incubated egg. For in this, when not impregnated, they diſcerned only the ſhell, the membranes, the albumen, and the yolk, with a little empty ſack: but when impregnated, this ſack evidently contained a ſpeck, ſo minute indeed as to eſcape the eye, yet viſible by the aid of a powerful lens. After ſome hours of incubation, with the heat at 98° of Fahrenheit, the ſpeck became, as in the firſt rudiments of all animals, a vermicle, and they remarked a head and tail, which are the brain with its appendage the ſpinal marrow. The heart next appeared, at firſt only as a vibrating arch, but by degrees it aſſumed auricles and ventricles. After this the lungs and viſcera with the limbs began to take their proper form, and the perfect chick appeared.

Thus preciſely is it, at leaſt as ſuppoſed by Boerhaave, Hervey, and Aquapendente, in the human ſpecies;—in which the brain lays the foundation for the arterial ſyſtem, for the viſcera, for the muſcles, and even for the bones, all deriving their origin from it, as the root, the trunk, the branches, and the leaves, in plants ſpring from the little corculum of their ſeeds.

How beautiful in this view of the ſubject are the pious breathings of the royal prophet! "I will praiſe thee, for I am fearfully and wonderfully made. My ſubſtance was not hid from thee; when I was made

made in ſecret and curiouſly wrought in the loweſt parts of the earth. Thine eyes did ſee my ſubſtance, yet being imperfect, and in thy book were all my members written, which in ſucceſſion were formed, when as yet there was none of them." Pſalm cxxxix.

When we have removed the coverings of the brain, we obſerve in the cerebrum two hemiſpheres curiouſly divided into lobes, with deep and multiplied circumvolutions, by which mechaniſm the cortical part, every where covered by the pia mater, is much increaſed.

This is cineritious in its appearance and vaſcular in its texture; but the medullary part is white, fibrous, and ſomewhat harder than the cortical, from whoſe ultimate arterial branches it is derived. A continuation of the medullary fibres forms the nerves.

It is now univerſally agreed, that the cortical ſubſtance is not glandular, and indeed where a conſtant and regular ſupply of a ſecreted fluid without interruption is required, the glandular mechaniſm with its reſervoirs would be improper. That in this caſe to have a perfect intermiſſion of the influx would be dangerous in the extreme, is evident, becauſe no ſooner is there a deficiency of arterial blood in the encephalon, than *ſyncope* enſues, which is inſtantly relieved when the vital ſtream returns.

We can readily aſſign the reaſon why it was

needful, that the cortical ſubſtance ſhould have a great extent of ſurface, for by this contrivance it is able to contain the numerous orders of ſecreting veſſels, from the ſmalleſt which are diſcernible to thoſe which are inviſible, and which terminate in the nervous tubuli of the medulla.

The cerebellum, ſeated in the inferior and poſterior part of the head, is divided into two lobes; but it has not ſuch circumvolutions as appear in the cerebrum. In this, as well as in the brain, the cortical part abounds, but the ſeparation between the cortical and the medullary ſubſtance is not ſo well defined, for the *latter* takes a ramifying courſe, and is thence denominated *arbor vitæ*.

From the medullary ſubſtance both of the brain and of the cerebellum is derived the medulla oblongata, and from this originate both the ſpinal marrow and the nerves, which either ſupply the organs of ſenſation or attend the moving fibres.

The brain is ſupplied with blood by the carotid and vertebral arteries, the former derived immediately from the aorta, the latter riſing up from the ſubclavians. Theſe are well protected in their aſcent towards the head, and, as they enter the cranium, are inflected in curious arches to reſtrain the impetus of their contained fluids, which might be otherwiſe injurious to the tender ſubſtance of the brain. The carotids are diffuſed over the cerebrum; and the vertebral arteries convey the vital ſtream more immediately to the cerebellum. Yet

theſe

theſe communicate by innumerable branches, ſo as to form a wonderful contexture of inoſculating arteries, which contribute to impede the rapid progreſs of the blood, whilſt at the ſame time they effectually prevent ſtagnation and diſtention. Theſe arteries depoſit their ſtrong muſcular integuments, before they enter the cranium. When they have entered, loſing a ſecond coat, they have no pulſation, and therefore reſemble veins, only they are deſtitute of valves. Under this form they conſtitute the moſt extenſive contexture of the pia mater, and from thence paſs by innumerable and infinitely ſmall ramifications into the cortex both of the cerebrum and of the cerebellum.

In the dura mater, the arteries are of a different conſtruction, for they retain their coats, and have ſtrong pulſations. They ſeem to have no communication with the cortical part either of the brain or of the cerebellum, for the dura mater and the pia mater appear to be perfectly diſtinct and ſeparated by the cellular membrane, known by the name of tunica arachnoides, which contains a roſcid lymph.

From the carotid and vertebral arteries, the two lateral ventricles derive branches to ſupply with blood their plexus choroides, which is a wonderful reticular membrane, conſiſting of arteries, veins, and, as Dr. Ridley reports, lymphatics.

The veins ſcarcely penetrate the medullary ſubſtance of the brain, but turn back, and from the cortex

cortex haſten to diſcharge their blood into the ſinuſes of the dura mater, which, running along the inner ſurface of the bones, and defended by a thick denſe membrane, are preſerved not merely from rupture, but from diſtention, which is likewiſe prevented by ſtrong filaments ſtretched acroſs them. It is thus ſufficiently provided, that the veins ſhall not cauſe compreſſion; but leſt they ſhould be themſelves compreſſed, the conſequence of which would be ſtagnation, and a fatal apoplexy, they neither in any part of the brain attend the arteries, nor do they enter by the ſame foramina.

That a conſtant ſupply of blood, circulating through the veſſels of the brain, is needful for the purpoſes of life, was early noticed by phyſiologiſts, who called the carotids by that name, from καρος, ſleep, becauſe Eraſiſtratus obſerved that when ligatures are faſtened on theſe arteries, the animal becomes lethargic. Drelincourt, who tried his experiments on dogs, aſſures us, that he made them apoplectic at his pleaſure.

As this effect may ariſe from deficiency of blood; ſo a redundance, cauſing diſtention of the veſſels and preſſure on the brain, produces the ſame apoplectic ſymptoms. Hence Pyerus, having tied up one of the jugular veins in a dog, obſerved that the animal was become ſtupid and lethargic.

That plethora in this caſe acts by compreſſion will be demonſtrated when I come to treat of hydrorachitis, and is evident by a ſimilar effect hav-

ing been produced on the Pariſian beggar mentioned by every anatomical profeſſor. This man, to excite compaſſion, and for a trifling recompence, ſubmitted to preſſure on the brain, having a portion of the ſkull bare. In conſequence of this, he firſt perceived innumerable ſparks, then loſt his ſight and fell into deep apoplectic ſleep, all which ſymptoms gradually vaniſhed when the preſſure was removed. To avoid the hazard of needleſs and uncertain preſſure, it was provided that the brain ſhould have no muſcular fibres, and that in the cranium there ſhould be no reſervoir of fat.

In the brain we remark four ventricles; two anterior, which are the largeſt; a third formed by the thalami of the optic nerves, and the crura of the medulla oblongata; and the fourth between the crura of the cerebellum and medulla oblongata. When theſe are empty, they collapſe and leave no vacant ſpace.

With regard to the benefits reſulting from different proportions between the cerebrum and the cerebellum, Boerhaave has remarked, that wiſdom and ſagacity depend upon the former, whilſt ſtrength is univerſally derived from the latter; and it has been obſerved by others, that in proportion as animals approach to vegetables the brain diminiſhes, whilſt the cerebellum is proportionably increaſed.

The cerebellum is carefully protected from every kind

kind of preſſure, particularly from that of the ſuperincumbent brain, and has neither ſinus, ventricle, nor pulſatile artery.

It is remarkable, that when the brain is extirpated, the vital, although not the voluntary, motions are continued; but no ſooner is the cerebellum injured, than the vibration of the heart is ſtopt, and reſpiration ceaſes. Drelincourt, who made numerous experiments on dogs, diſcovered, that when he had deprived them of their brain, they lived indeed, but like vegetables, without ſenſe or motion.

Such is the wonderful machine, to which, as both Hoffman and Boerhaave ſtate it, one third of the blood, chyle, and lymph, is ſent freſh from the fountain, that is, when it has recently received a ſupply of oxygen in its paſſage through the lungs.

But for what purpoſe is this abundant treaſure ſent into the brain? Not merely for nutrition, but chiefly for ſecretion. The heart has commonly two ſmall arteries, the liver only one, whilſt the brain receives blood from four, and thoſe conſiderable. That the nerves derive a fluid from the brain is rendered probable, by the experiment of Hoffmann, which Dr. Monro repeated, who having tied up the phrenic nerves, obſerved that the diaphragm no longer moved: yet, when theſe nerves were preſſed below the ligatures, ſome palpitation of the diaphragm returned. The nerve commonly examined is the left phrenic, as being moſt favourable for experiments, becauſe it is longer than the right,

and gives no filaments till it arrives at the diaphragm. On opening the cheſt, it is ſeen paſſing down the ſide in the form of a white thread.

From all that has been ſaid, it may fairly be conjectured, that the nerves and fibres of the brain are pervious, although, from their extreme tenuity, no one, except Lewenheuk, was ever able to affirm that he had ocular demonſtration of the fact. Nor ſhould this be matter of ſurpriſe, when we conſider that no eye has yet diſcovered hollow tubes in the peduncles, through which fruits are fed, as in the gourds of Spain, weighing from ſixty to one hundred pounds, although it is certain that in this manner nutriment is conveyed to them. It is computed that the ſmalleſt nervous filaments are no bigger than the hundredth part of an hair. By what means therefore can they be injected, and without injections how can their permeability receive ocular demonſtration?

In various caſes of diſeaſe a viſcid lymph is diſcovered in the ventricles of the brain, and to this we attribute coma: but, independent of diſeaſe, it is notorious, that the longer after death diſſection is performed, the greater is the quantity of lymph, for as Sauvage expreſſes himſelf,

Nihil vulgatius quam ſerum in ſinubus cerebri reperire, ſi longo poſt mortem tempore aperiatur cadaver: quò longius, eò uberius invenietur ſerum. Tom. ii. p. 630.

It is true, *abſorbents* have never been diſcovered in

in the brain: yet, as there are undoubtedly exhalants, it is reaſonable, both from effects and from analogy, to conclude, that ſome correſpondent veſſels to abſorb, as in all other cavities, muſt exiſt, although from their minuteneſs they eſcape the ſight. Dr. Cullen ſuppoſes that the extremities of the veins may perform this office. It matters not, however, what kind of abſorbents are employed by nature, becauſe, whatever they are, they muſt be ſubject to the laws of irritability, and liable both to the accumulation and exhauſtion of their vital energy.

Hoffmann, in his treatiſe on the nervous fluid, delivers an opinion, derived, as I imagine, either from Baglivi or Pachioni, which, although not adopted by ſubſequent profeſſors, yet, as coming from ſuch an eminent phyſiologiſt, cannot paſs without our notice. According to him the *dura mater* has its ſyſtole and diaſtole, its dilatation and contraction, by which the refluent blood, returning through the veins from the arteries of the pia mater, and received into its ſinuſes, is aſſiſted in its progreſs to the heart, whilſt the ſecretion and motion of the nervous fluid is increaſed by the ſame contrivance. In confirmation of his ſyſtem, he conſiders the mechaniſm of the dura mater, and particularly notices the ſtructure and direction of its membranaceous and nervous fibres. Hence he concludes, that the dura mater is not merely a covering of the brain, but that it ſerves the purpoſe of ſecreting

and propelling the nervous fluid to the moſt diſtant movements of the animated fabric. In proportion therefore to the ſtrength, tone, ſtricture, laxity, or atony, of this elaſtic membrane, the nervous fluid moves with greater or leſs celerity, and from hence ariſe the peculiar affections of motion and ſenſation obſervable in different conſtitutions. If this membrane labours under atony, the blood moves more ſlowly, whence a viſcid lymph is ſeparated in greater abundance, and comatoſe diſeaſes are induced. If the dura mater is ſpaſmodically affected, and that for any length of time; the arteries, veins, and medullary ſubſtance, are compreſſed; circulation ceaſes; the ſenſes, internal as well as external, are aboliſhed; and apoplexy follows, which may be either ſlight or fatal, according as either blood, by rupture of the veſſels, or ſerum, by exudation, is poured forth.—If the dura mater is, with celerity and force, alternately conſtricted and relaxed; the motion of the blood is quickened; ſecretion is augmented, and the nervous fluid, propelled with violence, produces epilepſy.

Such is the ſyſtem of this accurate obſerver; yet Boerhaave, not leſs attentive to nature, nor leſs diligent in his anatomical reſearches, differs from him in opinion, and conceives the nervous fluid to be protruded merely by the action of the heart and arteries. In order to ſolve the difficulty, why under this ſuppoſition ſenſations have not their pulſations, according as the nervous fluid is accelerated or retarded

tarded by the action of the heart; he ingeniouſly remarks, that the firſt impreſſion is not loſt before it is ſucceeded by a ſecond and a third. This obſervation might have been illuſtrated by the whirling of a firebrand, which exhibits light in one continued circle.

SECTION IV.

OF SLEEP.

THE end and deſign of ſleep is both to renew, during the ſilence and darkneſs of the night, the vital energy, which has been exhauſted through the day, and to aſſiſt nutrition.

Among the exhauſting powers may be reckoned heat, light, motion, ſound, and thought, with the exerciſe of reaſon, imagination, deſire, and volition. And if to theſe we add ſenſations, accompanied by pain or pleaſure, we ſhall complete our catalogue.

When therefore we are to aſcertain the degree exhauſted by theſe powers, we are taught by nature to retire, that, recumbent in ſome ſequeſtered ſpot, unmoleſted by light, by heat, by noiſe, and free from the excitements of volition, ſleep may quietly ſteal upon our ſenſes and cloſe the avenue to thought. In this ſituation all the muſcles, excepting the ſphincters, are relaxed, and voluntary motion ceaſes,

but not the vital and involuntary, for theſe, far from exhauſting, ſerve only to recruit our ſtrength. Such is the periſtaltic motion of the alimentary canal, on which depends nutrition; ſuch reſpiration, which ſupplies the pabulum of life; and ſuch the motion of the heart, which diſtributes the energetic principle to every part of the animated frame.

When all ſtimulating powers, excepting thoſe which immediately excite the vital functions, are removed, ſleep firſt takes poſſeſſion of the limbs and blunts ſenſation; then impairs the recollection with the reaſoning power, and finally precludes volition. If profound, it puts a total ſtop to all the imaginations of the mind.

Such are the phænomena of ſleep. But how is it produced? What is the proximate, what the remote cauſe of ſleep?

I am inclined to think that there are abſorbents in the cavities of the brain, as in all other cavities of the body, to take up and carry off what the exhalants have depoſited, and I imagine that, during our waking hours, their activity is great in proportion to the intenſity of thought, of volition, and of muſcular exertion. Should this be granted; it will follow, from the laws of the animated fibre, that theſe abſorbents, exhauſted by inceſſant action, will become torpid in a degree, whilſt the exhalants continue to pour forth into the ventricles of the brain their viſcid lymph, as happens even after death, according

according to the aſſertion already quoted from Sauvage.

Hence may ariſe that degree of preſſure on the veſſels of the brain which blunts the faculties, produces a ceſſation of voluntary motion, and terminates in total abſence of ſenſation.

For the occaſional cauſes of ſomnolency we may look to ſuch as diminiſh the vital energy and action of the abſorbents by exceſs of ſtimulus; which may be heat, animal food, ſpices, ſpirits, opium, and either violent or long-continued exertions, whether mental or muſcular. Among theſe we find the ſame cauſes which occaſion drunkenneſs in its ſeveral degrees of intenſity, with deep ſleep and death.

Or the occaſional cauſes, diminiſhing the vital energy, may be directly ſedative, ſuch as exceſs of cold, which is attended by inſuperable deſire to ſleep; fear, when extreme; profuſe evacuations; exhauſting diſeaſes; and whatever either diminiſhes the ſupply of blood to the veſſels of the brain, ſuch as ligatures on the carotids, and preſſure on the cortical ſubſtance of the brain by plethora, or impedes the return of blood by the veins, as happens to decrepit age, and to ſuch as are oppreſt with fat.

Hoffmann, when treating of ſleep and wakefulneſs, remarks, that the tone and vigour of the brain being much diminiſhed, partly by vigilance through the day, and partly by languid circulation of the blood by night, this gives occaſion to more copious exhalation

exhalation of lymph, which ſtagnates in the veſſels of the brain, and impedes the ſecretion of the nervous fluid. He obſerves, that whatever retards the circulation of the blood produces ſleep, and that ſleep itſelf retards the circulation of the blood; for during ſleep the pulſe is ſlow, and the reſpiration is both deeper and ſlower than when we are awake.

That during ſleep the whole ſyſtem is relaxed is evident, becauſe every part of the body becomes turgid; and that ſome of the exhalants act more freely than the abſorbents, with which they are connected, is manifeſted by the pearly drops of ſweat ſtanding like dew upon the face of children, or flowing from every pore of hectic patients, in the morning. To this obſervation it may be added, that children and people of lax habits ſleep more than old people, or ſuch as are diſtinguiſhed for rigidity of fibre. That there is ſome accumulation in the veſſels of the brain is rendered probable by obſerving, that when any one is ſuddenly awakened from profound ſleep, he is convulſed; weight and torpor in the head are felt for ſome conſiderable time; the ſenſes are ſlow in their return, and the muſcles do not readily obey volition. Theſe ſymptoms are frequently rendered more remarkable when weakly ſubjects ſleep after a full meal before the fire.

During quieſcence the abſorbents, having accumulated vital energy, act with renovated vigour, and a diſpoſition to wakefulneſs enſues.

Thus this wonderful machine, by its alternate accumulation and exhauſtion of energetic power, ſeems

to

to reſemble, in ſimplicity of action and contrivance, the ſyphon fountain, or an engine kept in motion by the alternate collection and condenſation of the ſteam.

In ſupport of this theory the ſtudent may conſult what I have delivered reſpecting the proximate cauſe of ſerous apoplexy. One degree of preſſure produces, as I imagine, drowſineſs, and a greater brings on ſleep in its ſeveral ſtages of intenſity, from that which is lighteſt, to lethargy, apoplexy, death.

If any one retires to a ſequeſtered ſpot, undiſturbed by light, by noiſe, by pain, or mental paſſions, when every muſcle is quieſcent, and when volition ceaſes; when there is nothing to excite the ſyſtem; his ſtate of ſomnolency will be prolonged, attended firſt by ſound and refreſhing ſleep, afterwards by dozing. Boerhaave relates the caſe of a wealthy young nobleman in Holland, who, having overdrank himſelf, was, by orders from the prince of Orange, carried into a dark and quiet place, where he ſlept three days and as many nights, not inceſſantly, for he awoke often, but whenever he opened his eyes, believing it to be the middle of the night, he turned round and dozed again.

From what has been ſaid, it ſhould appear, that ſleep may ariſe from either exhauſted energy or want of excitement in the abſorbent ſyſtem.

Many animals, ſecluded from light, heat, and the free acceſs of atmoſpheric air, doze through the

whole winter. In this caſe the vital functions are ſcarcely perceptible, for although the lamp of life is not extinguiſhed, it burns dim; the animal functions are ſuſpended; and the natural functions are nearly ſo; for nothing paſſes either by urine or by ſtool, little eſcapes by perſpiration, and in the torpid ſtate digeſtion ceaſes. In this condition of the animal little oxygen is received into the ſyſtem by the lungs; no great quantity of hydrogen is conſumed in any given time for the purpoſes of life, and conſequently the vital heat is much diminiſhed.

Although I have ſuppoſed that ſleep may be induced by preſſure and accumulation of lymph in the ventricles of the brain; yet we muſt remark that during ſleep the abſorbents are certainly at work.—1. In the urinary bladder; for the urine is ſmall in quantity, and high coloured. 2. In the alimentary canal; for the fæces are hardened. 3. In the membrana adipoſa; for the fat after long protracted ſleep is conſiderably waſted, and at the end of winter, in the torpid animals, is commonly conſumed. 4. In the ventricles of the brain, for were it otherwiſe, not merely ſleep, but apoplexy and death, would be the conſequence.

In the torpid and quieſcent ſtate the appetite for food is loſt, for it uſually bears proportion to the quantity of exertion, whether mental or muſcular; and as no freſh ſupply of hydrogen is received into the ſtomach, the little required to feed the lambent flame is readily derived by abſorption from the cells

or

or reſervoirs of fat diſperſed over the body, and more eſpecially about the loins.

During our time of ſleep, when every muſcular fibre is relaxed, and when nutritive particles are diſtributed wherever they are wanted; proviſion of oil is made for the conſumption of the waking hours. Hence animals, who eat and ſleep immoderately, are apt to be oppreſſed with fat.

Somnolence, too much indulged, brings on fatuity. Boerhaave relates the caſe of a phyſician, who took ſuch delight in ſleeping, that he retired to a quiet and ſequeſtered chamber, where, in perfect darkneſs, he ſlumbered almoſt inceſſantly, till he loſt his intellects, and periſhed in an hoſpital.

The duration of ſleep, with the alternate periods of repoſe and vigilance, depend much on habit; and this once acquired is with difficulty changed.

SECTION V.

OF VIGILANCE.

Vigilance, when attended by anxiety, pain in the head, loſs of appetite, and dimunition of ſtrength, is by Sauvage and Sagar conſidered as a genus, and is called *agrypnia*. They have claſſed it

it under the VESANIÆ, immediately after their *deliria*; and of this genus Sauvage enumerates eleven ſpecies.

1. *Agrypnia arthritica*, ariſing from retrocedent or atonic gout.

2. *Agrypnia pathematis*, induced by paſſions of the mind, ſuch as anger, fear, and ſtrong deſire.

3. *Agrypnia hyſterica*, attended by palpitations, ſtarting, ſubſultus tendinum, impeded reſpiration, ſpaſmodic contraction and convulſive motions, at the inſtant when ſleep is ſtealing on the ſenſes.

4. *Agrypnia cephalalgica*, attended by violent headach, induced by inflammation in the pia mater.

5. *Agrypnia ex pancreate*, ariſing from an abſceſs in the pancreas, and attended by cold ſweats with ſyncope.

6. *Agrypnia a dolore*, induced by grief, and therefore coinciding with his ſecond ſpecies.

7. *Agrypnia ab indigeſtione*.

8. *Agrypnia febrilis*, common in all fevers.

9. *Agrypnia ſenilis*, attendant on old age.

10. *Agrypnia critica*, preceding epiſtaxis and other critical diſcharges.

11. *Agrypnia ab inſectis*, ſuch as bugs, lice, fleas, gnats, ants, &c.

In

In treating of this ſubject I ſhall, without following ſtep by ſtep the ſpecific arrangement of Sauvage, conſider what are the remote cauſes, and then venture to ſuggeſt what may be the proximate cauſe of vigilance.

The occaſional cauſes are evidently ſuch as ſtimulate the ſyſtem.

1. The ſtimuli may be purely mental, ſuch as anger, fear, joy, grief, with intenſity of thought and *volition*.

I was acquainted thirty years ago with a moſt amiable lady, Mrs. Mitchell, of Glaſgow; who having the misfortune to loſe a huſband, by whom ſhe was tenderly beloved, never ſlept a moment for ſix weeks: and Sauvage makes mention of a young lady at Montpellier, who having ſeen her huſband murdered by aſſaſſins, was deprived of ſleep for more than three months.

2. The ſtimuli may be material, including ſuch changes in the body as excite ſenſation. Such are ſtrong light, loud ſounds, offenſive ſmells, diſguſting taſte, hard touch, if theſe are unuſual or ſuch as commonly call forth volition, for none of theſe produce watchfulneſs, when the mind has been accuſtomed to regard them with indifference.

The moſt powerful ſtimulus is *pain*, becauſe by this the animal is warned of immediate danger, whether the uneaſy ſenſation ariſes from ſpaſm, diſtention, laceration, or any ſolution of continuity produced

duced either mechanically or by chemical attraction. When pain has been for any length of time endured, it proves, like all other ſtimulants, a powerful ſedative.

3. The ſtimuli, if not ſo powerful as to excite ſenſation or volition, may yet produce irritation, as I have explained at large in the ſections of irritability and ſtimulants in the preceding volume.

The irritation may be,

a. In the lungs; as in caſes of aſthma and catarrh.

b. In the ſtomach; ariſing from indigeſted ſordes, viſcid mucus, worms, hunger, thirſt. Hoffmann ſays, Ventriculo bene habente, totum corpus alacrius eſt, ſomnus fit placidus, ſi vero onuſtus eſt alimentis incongruis, ſomnus deficit vel inſomniis terrificis interturbatur.

c. In the bowels; from bile and flatulence, from fæces in the rectum.

d. In the urinary bladder.

e. In the ſeminal veſſels.

f. In the brain, or its meninges, either ariſing from or attended by a quickened circulation of the blood, for whatever accelerates the motion of the circulating fluids in the veſſels of the brain, induces vigilance.

Thus

Thus far all is clear; but as we advance we ſhall find ourſelves in the regions of doubt, of darkneſs, of conjecture.

How then ſhall we account for vigilance? Borrowing a ray of light from chemiſtry, ſhall we venture to ſuppoſe it may ariſe from the uninterrupted ſupply of oxygen and hydrogen to the veſſels of the brain?

If we ſuppoſe ſleep to be produced by the preſſure of roſcid lymph in the ventricles of the brain, and particularly, as I may now proceed to ſtate it, by preſſure on the plexus choroides and the minuter or ſecreting veſſels of the brain; may we not indulge our imagination and conjecture, that vigilance is produced by the union of oxygen and hydrogen, the latter perhaps ſecreted by ſome of the veſſels of the brain, the former derived by chemical attraction from the arterial blood of the plexus choroides? We know that by vigilance and thought, as well as by motion in the ſyſtem whether vital or voluntary, both oxygen and hydrogen are conſumed and loſt, whilſt heat and water are produced; and it is now underſtood that the chemical union of thoſe principles generates water and diſengages heat.

Let the ſtudent recollect, that in the ventricles of the brain he finds no coagulable lymph, but the pureſt water, which is therefore denominated roſcid lymph by Boerhaave.

I have already ſtated, that the abſorbents recover

their tone merely by quieſcence; but ſuppoſing the ſtimuli above ſtated are applied to any part of the ſyſtem; the abſorbents, agreeable to the laws of the animal œconomy, will be excited by ſympathy, for it is obſerved, that irritation draws into conſent the neareſt exhalants and the remote abſorbents. The fact is certain, and the wiſdom of this œconomy will be obvious to the ſtudent, if he recollects what has been delivered on the efforts of nature to relieve herſelf.

In ſupport of theſe theoretical conjectures I would ſuggeſt the ſubſequent conſiderations.

1. A ſuperabundant ſupply of hydrogen from fermented liquors received into the ſtomach, at firſt brightens all the faculties and gives increaſe of vigour, but ſpeedily brings on intoxication followed by apoplectic ſleep: but the inſpiration of oxygenated air, as Dr. THORNTON has cleared proved, ſtops the progreſs of intoxication, and therefore prevents apoplectic ſleep.

2. We obſerve in crowded rooms, when candles burn dim for want of air, the human underſtanding is confuſed, and all its powers are enfeebled; but the imagination kindles, when the lungs take in a freſh ſupply of well oxygenated air.

3. The inſpiration of foul air in mines, whether hydrogenous, carbonic, or the two combined, brings on deep ſleep and death; but by the admiſſion of uncontaminated air the miners are ſpeedily revived,

and

and the ſame happens frequently in Spain to thoſe who ſit too long, or ſleep in a cloſe room with burning charcoal, which conſumes the oxygen and diſcharges carbonic air.

4. Boerhaave has remarked, that in acute diſeaſes, the blood is found chiefly in the arteries, while the veins are comparatively empty. For this phænomenon he in vain endeavours to account; but the cauſe is evidently this: the blood in all inflammatory fevers, being highly oxygenated, ſtrongly ſtimulates the heart, and is therefore propelled into the arteries in great abundance, and quicker than the veins can receive it.

But when highly oxygenated blood, as in acute diſeaſes, ſuch as ſynocha, pleuritis, phrenitis, moves with rapidity through the ſyſtem, and therefore in the veſſels of the brain, vigilance, particularly in young ſubjects, ſometimes continues night and day for a whole week together. In ſuch circumſtances, as Boerhaave, with his uſual accuracy of diſcernment, well obſerved, their body has been rendered lighter by one third part of its weight, ſo that thoſe, who had been very fat, have been reduced almoſt to ſkeletons. See his lectures on the theory of phyſic, ſections 599, 600.

In ſuch circumſtances, whilſt the fever rages, the patient can riſe up with eaſe and ſupport himſelf in bed: but when the fever is exhauſted, weak and relaxed, he ſleeps inceſſantly, or only awakes to take in more food, that is, to ſupply the lamp of life with

hydrogen, then ſleeps again. My friend Dr. *Thornton* informs me, that when he exhibits oxygenated air to thin people, it increaſes their appetite for food; but that when fat people inſpire it, they eat leſs, grow thinner, and yet find no deficiency of ſtrength. Many inſtances have been recorded, and the judicious author of a late work called MEDICAL EXTRACTS has been at the trouble of collecting ſeveral, where perſons, overcharged with hydrogen, as in the caſe of *drunkards*, have been conſumed by *ſpontaneous combuſtion*, when heat, ſufficient for that purpoſe, was diſengaged by the chemical union of *oxygen* with the *hydrogen*.

The proceſs of *combuſtion* being little underſtood, unleſs by modern chemiſts, I ſhall explain it in the burning of a wax candle. You kindle twiſted threads of cotton and thereby melt the wax. This being fluid is by capillary attraction drawn up into the wick, and aſcends into the part which is in flame, from whence it riſes in the form of gas, and in that ſtate, combining readily with the oxygen of the atmoſpheric air, compoſes aqueous vapour, which may be eaſily condenſed, and ſets at liberty both light and heat. When I was laſt in London, Dr. THORNTON ſhewed me a very elegant proceſs of combuſtion by putting one drop of ether into a two ounce phial of oxygenated air, which he then kindled with a match. The combination was inſtantaneous; water was produced; and the light and heat

heat were not inferior to those which are disengaged from detonating gold.

It is allowed that the blood, in its return towards the heart, has lost the oxygen which it had acquired in the lungs. What then is become of it? Surely it is not annihilated. The quantity derived from the air merely by breathing is considerable; but the same physician, to whose experiments I have so frequently referred, and whose ardour in the pursuit of science merits our applause, assures me, that the cuticular absorbents have the same power and perform the same office with the lungs.

It is well known that both mental and muscular exertion, as I have already stated, consume the fat, and it is well ascertained that whenever there is motion or any combination in the system, heat is generated: it is likewise proved by the experiments of Dr. Priestley, that oxygen will pass through the pores of membranes to unite with hydrogen.

Since then we have lost oxygen and hydrogen in great abundance, and acquired both heat and water, is it not probable that the oxygen, which disappeared, has formed a chemical union with hydrogen and produced the water, whilst at the same time heat has been evolved. The water thus continually formed is either taken up incessantly by the lymphatics, and conveyed back to the mass of circulating fluids, or passes out of the system by the exhalant arteries.

Were it my preſent intention to treat of muſcular motion, I ſhould enlarge on the curious texture of the cellular membrane, with which every, even the moſt minute, faſciculus of muſcular fibres is incloſed; but I muſt leave this for the phyſiologiſt, and haſten to a concluſion of this ſection.

Whatever then becomes of my conjectures reſpecting the proximate cauſe of vigilance, it ſtands confeſſed, that the occaſional cauſes are ſuch as ſtimulate the ſyſtem, and that, from common watchfulneſs to furious raving, it bears proportion to the degree of excitement in the brain.

What I have here delivered, ſeems to be confirmed by the caſe of Mr. T. as related by Dr. THORNTON. The aſthma appeared for ſix weeks to be aggravated by oxygen, when exhibited alone; but a cure was perfected, when the patient took oxygenated air with tonics in the day, and hydrogen gas in reſpiration, aſſiſted by opium, in the evening. And the experiments of Dr. CARMICHAEL of Birmingham, with the accurate obſervations of Dr. BEDDOES on inſpiration of *carbonated hydrogen*, by which they were able to induce ſleep almoſt at pleaſure, throw much light upon this curious ſubject, and ſeem to confirm my conjectures.

SECTION VI.

OF DREAMING.

DREAMING is the intermediate ſtate between vigilance and ſleep.

It takes place uſually towards the morning, and may be at any time excited by irritation in the ſyſtem.

It is the imperfect exerciſe of *memory*, and the impreſſion may be either indifferent, or attended with joy, grief, hope, fear, deſire, and volition.

The intenſity of theſe affections depends on the degree of excitement in the brain; and this again will be in proportion to the irritability of the ſyſtem and to the energy of the exciting cauſe, which cauſe may be either mental or material.

1. If during the day we have ſeen any thing uncommonly ſtriking, although not in the leaſt intereſting, as producing neither pain, pleaſure, hope, nor fear; the image will, unleſs we ſleep profoundly, be renewed by night. *Spinoſa* relates of himſelf, that from the time in which he firſt ſaw Brazilians ſeven feet high with long yellow hair, it made ſo ſtrong an impreſſion, that he had always the ſame image in his dreams, and could with difficulty free himſelf from it during the day.

2. The oftener this image is renewed, the more readily will it be excited in the mind; and by frequency of recurrence a regular habit will be eſtabliſhed.

3. When the paſſions of joy, ſorrow, hope, deſire, fear, and terror, have been ſtrongly excited in the day, the attendant images will preſent themſelves in dreams by night. The lady of Montpellier, already mentioned, no ſooner cloſed her eyes to ſleep, than the image of her murdered huſband, and the aſſaſſins ſprinkled with his blood, were in the moſt vivid forms repreſented to her view.

4. Whatever image is by dreaming preſented to the mind, is apt to aſſociate others, between which and it there is either natural or accidental connexion. Thus if a man dreams that he has been guilty of a crime, his imagination will repreſent conſtables purſuing, the judge pronouncing ſentence, and the executioner fixing the halter on his neck.

There is a curious experiment, which ſhews a propenſity in the ſyſtem to renew whatever images have made a vivid impreſſion on the ſight.

If when the ſun ſhines bright, you look through a window at a landſcape, fixing your eyes ſteadily on one ſpot, till viſion is diſtreſſing, and till the view begins to fade, then gently cloſe your eyelids and put a hat before your face; the repreſentation will alternately appear and vaniſh, and what is ſtill more

more remarkable, the image of the window-bars and of the neareſt trees will be dark, whilſt the ſky appears to be either purple or light green: but whenever the hat is removed, and light is tranſmitted through the eyelids, the bars of the window and the trees become red like fire edged with green, and the ſky is dark. Even when the eyes have been for ſome time opened and engaged with other objects, on being cloſed again, all theſe appearances will be renewed.

The ſtudent, I truſt, recollecting what has been delivered on the accumulation of irritability, will readily comprehend why the darkeſt objects become the brighteſt, when light is tranſmitted by the eyelids. But what I have principally in view is, to ſhew the recurrence of images, whilſt the eyelids are cloſed, and the attention is not diverted by more powerful ſenſations.

When debility and irritability prevail in the extreme, the moſt trifling irritation will be ſufficient to produce the recurrence of images, paſſions, ſenſations, and aſſociation of ideas; but in the more torpid it requires ſome powerful ſtimulus; and this may be either in the ſtomach or the brain itſelf.

The ſtomach is commonly the part in which we may ſeek the occaſional cauſe of dreams; but whatever induces determination to the head, or quickens the circulation in the veſſels of the brain, without producing vigilance, will have the ſame effect. Dr. Lower gives the caſe of one who ſlept

ſoundly

ſoundly whilſt his head was inclined forward, yet when his head fell back he was ſoon awakened with horrid dreams and tremors.

In this patient, after death, water was diſcovered in the ventricles of the brain.

SECTION VII.

OF THE CAUSES REMOTE AND PROXIMATE OF ONEIRODYNIA ACTIVA.

It may be ſufficient to obſerve, that the prediſponent cauſe, as in oneirodynia gravans, is certainly debility, becauſe, not the robuſt and perſons of a rigid fibre, but the delicate, and ſuch as are moſt irritable, are moſt liable to this complaint.

The occaſional cauſes may be, as in *oneirodynia gravans*, indigeſted ſordes, viſcid mucus, worms, ebriety, and the abuſe of laudanum.

As to the proximate cauſe, nothing certain can be delivered, but I confeſs myſelf much inclined to think with Dr. Cullen, that the brain is liable to partial excitements, and that in this affection, as in delirium, we need look no further for the cauſe. Every faculty ſeems to be awake, excepting *conſciouſneſs*, for the perſon walking in his ſleep, with his eyes open, turns aſide to avoid obſtacles, and unerringly directs his ſteps, as if he were awake: yet

yet when conſciouſneſs returns, he has no recollection of what he did or where he went.

Something ſimilar to this may happen to thoſe who are perfectly awake, but deeply engaged in thought.

I remember formerly having ſeen a clergyman, much attached to mathematical ſtudies, to whom it frequently happened, even when he was engaged in the ſolemn ſervice of the church, that having his attention wholly occupied in his favourite purſuits, he did not from the beginning to the end retain the leaſt conſciouſneſs of what he was about, and yet he never made miſtakes. Had any one recalled his conſciouſneſs in the middle of prayers, he would certainly have been confuſed, and would perhaps have been unable to proceed.

In caſes of oneirodynia activa, either ſtrong light, loud ſound, or a baſon of water daſhed in the face, awakens conſciouſneſs, yet with manifeſt hazard to the health and underſtanding of the patient.

SECTION VIII.

OF THE INDICATIONS OF CURE IN CASES OF ONEIRODYNIA.

The indications muſt be taken from the remote cauſes:

The occaſional cauſes require particular attention. Theſe are to be carefully avoided. Strict temperance is to be enjoined: viſcid mucus requires emetics; and worms muſt be deſtroyed by anthelmintics.

The prediſponent cauſe calls for tonics and aſtringents.

Nothing can be more judicious than the curative intention of Etmuller.

In his *incubus accidentalis*, he orders emetics, and forbids eating much at ſupper.

In his *incubus habitualis*, he recommends the ſame treatment as for hypochondriaſis, that is emetics, volatile ſudorifics, gentle aloetics, and above all the martial preparations, to which bark, wine, and opium, as part of the highly tonic regimen, may be ſometimes added to advantage.

For an emetic, ipecacuanha, from three to ten grains; with tartarized antimony, from one to three grains, according to the age and irritability of the patient, may be given in the morning faſting.

Gentle cathartics muſt occaſionally follow the emetics, and for this purpoſe the ſubſequent pills will be found ſufficient.

℞ Pulv. Aloes, cum ferro, dr. 1.
—— Calomelanos, gr. 10.
Tinct. Aloes, q. s. f. pill 20.
Capt. Pil. j. o. n. h. s.

Should

Should one pill every night be found insufficient to keep the body reasonably open, the quantity must be increased; but as it will be in vain to evacuate the bowels, unless the tone of the system is restored, five grains either of ferrum tartarisatum, of rubigo ferri, or of limatura ferri, in conserve of roses, should be given twice or three times a day. These may sometimes give place to the Peruvian bark, or both may be united, as occasion may require, according to the formulæ 76, 77, 78, of my Physician's Vade Mecum.

This treatment will be found equally efficacious in both species of oneirodynia.

Genus LIX. *Melancholia.*

Melancholy.

The pathognomic symptom is erroneous judgment, not merely respecting health, arising from imaginary perceptions or recollections, influencing the conduct, distressing the mind with ill-grounded fears, and not combined with either pyrexia or comatose affections.

INTRODUCTION.

Dr. Home considers melancholia and mania as two species of *insania*, and this he defines permanent *delirium* without fever.

Melancholy then, according to him, is insanity accompanied by sadness: *madness* is insanity attended by rage. In the former, *fear* prevails; *anger* in the latter; but in both we have delirium.

SECTION I.

OF DELIRIUM.

When treating of fevers I had occasion to distinguish delirium, as occurring either in synocha or in typhus, without however staying to consider the proximate cause of these affections.

It will be needful to resume the subject in this place, to which it more immediately belongs.

Delirium, as defined by Dr. Cullen, is, in a person awake, a false judgment arising from perceptions of imagination, or from false recollections, and commonly producing disproportionate emotions.

Of this he very properly distinguishes two species, considering it either as combined with pyrexia and comatose affections; or as totally free from such a combination. He likewise marks the affinity between delirium and dreams, or rather proves that delirium is a waking dream. Whatever then has been suggested respecting dreams is applicable to delirium.

Dr. Cullen imagines it arises from unequal excitement in the brain, and I see no reason to differ from

from him in opinion. That he is right in his conjecture is probable, becauſe ſtrong excitement, as by any loud or ſudden noiſe, calls back the recollection, and for a ſhort interval reſtores the ſenſes. Van Swieten in his comment well remarks, *Si ſubitanei quid et improviſi ipſis acciderit, pro momento bene reſpondent; paulo poſt, deleta hac vivida impreſſione, relabuntur.* Sect. 700.

In adverting to this ſubject, we cannot but call to mind the difference between the *delirium* of *ſynocha* and the *delirium* of *typhus*. In the former we find a pulſe full, ſtrong, and vibrating from 90 to 110 ſtrokes in a minute, and the heat much increaſed. In the latter the pulſe is weak, ſmall, and fluttering, with the vibrations almoſt innumerable. Here is at the ſame time remarkable proſtration of ſtrength, but the heat is moderate.

In the former, ſubſtances producing hydrogen, received into the ſtomach, increaſe delirium; but acids tend greatly to diminiſh it. In the latter, no benefit is derived from acids in the ſtomach, but whatever moſt abounds with hydrogen removes the ſymptoms of debility and reſtores ſerenity. In the former, to inſpire oxygenated air is hurtful: in the latter it is highly beneficial. In the former all is in a blaze: in the latter the lamp of life, for want of pabulum, is well nigh extinguiſhed, and the vital energy is ſo far exhauſted, that, for a conſiderable time before the diſſolution, the iris ceaſes to contract by the ſtimulus of light.

Of

Of this diſtinction every practitioner is ſufficiently aware; but it is far from being univerſally underſtood, that *delirium* may be occaſioned by viſcid mucus, and corrupted bile in the firſt paſſages. Van Swieten ingenuouſly confeſſes, that he is indebted for this information to his maſter Boerhaave, and adds, *Monitus ab optimo præceptore, frequentem ſatis* DELIRII *in febribus cauſam eſſe ſordes circa præcordia collectas; poſtea attentus huic rei, vidi ſæpius hoc veriſſimum eſſe; et unico vomitorio dato, excuſâ hac ſaburrâ recordor plures ilicò reſipuiſſe*, ſect. 701. And Dr. Whytt, who ſtudied in the ſame ſchool, relates the caſe of a delirium in a boy, who ſlept well, had a ſharp appetite, was not coſtive, and whoſe pulſe was full and ſlow. This boy, after having been bled and bliſtered to no purpoſe, was cured by calomel and rhubarb, which brought away a great quantity of ſlime.

I remember a patient, attended by my much lamented friend and fellow ſtudent, Dr. Stack, of Bath, who for a length of time was delirious every night, and conceiting, from pain in his bowels, that he was devoured by dogs, thraſhed with his cane every one who approached him, or in their abſence beat the bed poſts, to drive away the furious animals. In this caſe, when other remedies had failed, his ſymptoms were relieved by evacuants producing a diſcharge of viſcid mucus and of bile.

Thus we may diſtinguiſh three ſpecies of *delirium*, as it is found either in the ſanguine temperament

or

or in the melancholic, becauſe the former may have either the robuſt and elaſtic fibre, which is eſſential to ſtrength, or the lax and irritable fibre, which accompanies debility. This diſtinction is important, as having a reference to practice.

Delirium may indeed be occaſioned by mental irritation: yet ſuch is the connexion and conſent between the mind and body, that what originates altogether in the former is ſoon communicated to the latter, and then action and reaction proceed continually till the diſorder is confirmed, and delirium terminates in madneſs.

To inveſtigate this matter, as far as we are able, we muſt conſider what are the laws of the animal œconomy.

1. The more vivid the ſenſation when the image is impreſſed, the ſtronger is its diſpoſition to return, and the ſhorter are the intervals of abſence, till by intenſity of application the idea becomes permanently fixed. Thus if you look ſteadily at the ſun, ſo as moderately to fatigue the ſight, then retire to a dark room, the image of the ſun will alternately vaniſh and appear for a conſiderable time; but if you continue gazing for a greater length of time, the image will remain for hours or for days.

2. The more deeply intereſted we are in any object, that is, the more forcibly it excites either hope or fear, the more frequently will the idea of that object be preſented to the mind.

3. Every idea, which has frequently recurred, has a diſpoſition to return, and, by returning often, becomes both permanent and vivid.

4. Whatever ideas have been either uſually, or even accidentally, yet powerfully aſſociated, have ſuch a diſpoſition to aſſociate, that any one of theſe, reſpecting either hope, fear, time, place, perſons, things, or even arbitrary characters, being preſented to the mind, excite all the reſt either in regular or in confuſed ſucceſſion.

5. Theſe ideas commonly return and wanton in the imagination during the ſilence and darkneſs of the night, or even by day in the abſence of more powerful ſenſations. In ſome circumſtances cloſing the eyes may be ſufficient to produce them, as the ſtudent may recollect in the caſe of bilious autumnal fever, to which I called his attention in the beginning of this work. Dr. Whytt relates the caſe of a patient affected with eryſipelas, who, when his eyes were open, was free from confuſion in his ideas; but no ſooner did he cloſe them, although not aſleep, than he thought himſelf carried ſwiftly through the air to diſtant regions, or that his head, arms, and legs, ſeparated from his body, were flying off in different directions.

In theſe caſes the irritation is weaker than the uſual ſenſations conveyed by light, for it vaniſhes like the glow-worm's feeble glimmering at the riſing of the ſun.

6. When

6. When the image is vivid and forcibly impreſſed upon the mind by frequent recurrence, or by rivetted attention, and when the paſſions of hope or fear have been ſtrongly intereſted by its preſence; it will continue undiſturbed by new ſenſations, more permanent than the image of the [illegible] which Boerhaave had the raſhneſs to [illegible] retina from the focus of a convex [illegible] as he informs us, remained [illegible] days.

7. Theſe ideas with their aſſociated train, although at firſt excited by mental irritation, may be renewed by irritation in other parts of the ſyſtem, preciſely as I have ſtated in the caſe of dreams.

8. When theſe ideas are renewed by irritation, whether mental or material, the impreſſion will bear proportion to the debility of the ſyſtem, and to the ſtrength of the irritating cauſe: or, the degree of irritation being given, it will be directly as the debility. If therefore delirium ſupervenes, when debility and irritability do not prevail, we may be certain, that there is ſome powerful ſtimulus either on the brain, or probably in the firſt paſſages of the alimentary canal, as will be explained in the fifth ſection under mania.

9. When images are permanent and vivid, the mind has no criterion by which it can diſtinguiſh ſuch as are excited by irritation in the ſyſtem, from thoſe that correſpond with, and are immediately produced by, external objects.

SECTION II.

OF THE HISTORY AND PROGRESS OF MELANCHOLY.

THE perſons moſt liable to this diſeaſe are men of the *melancholic temperament*, particularly thoſe who from active life retire to ſolitude, and, without employment for either the body or the mind, overcharge the alimentary canal, more eſpecially if the place of their retreat is low and damp, or if, in ſuch circumſtances, they meet with keen vexation, and are haraſſed with anxiety.

It is likewiſe the diſeaſe of ſtudious and ſedentary people, who neglect muſcular exerciſe, whilſt they exhauſt the powers of the mind. With them, however, it does not uſually aſſume the moſt hideous features of deſpair, but is often ſo mild and gentle in its aſpect as to claim affinity with a diſeaſe between which and it the reſemblance is too ſtriking to eſcape our notice. In both there is erroneous judgment; but whilſt in *hypochondriaſis* this has reſpect to health alone, in *melancholia* it is not thus confined.

When the literary man conceits that he is converted into wax; when with Dr. Watts he imagines that his noſe is bigger than his chamber door; or, ſuppoſing himſelf a clock, ſtands upright in the corner of his room, moves his head from ſide to ſide,

ſide, and clicks to this motion, ſo as to imitate the ſound and vibration of a pendulum, without any other ſymptom of derangement; we do not heſitate to pronounce him deeply *hypochondriacal*. But when he becomes habitually gloomy, fretful, and ſuſpicious; when his diſtreſſing apprehenſions are not confined to health, but ariſe from other ſources; more eſpecially if he continues free from dyſpepſia; the beſt phyſicians are agreed to conſider him as attacked by *melancholia*. Yet between theſe diſeaſes the limits are not in all caſes eaſy to be traced.

The uſual progreſs of melancholy is well deſcribed by Boerhaave.

Patients in this diſeaſe are pale and bloated; but by degrees they contract a livid hue and grow very thin. They loſe their ſleep, and commonly their appetite, although many inſtances are found of aſtoniſhing voracity. Reſpiration and the pulſe become weak and ſlow; the habit coſtive in the extreme; the whole ſyſtem torpid. A ſullen gloom takes poſſeſſion of the countenance, anxiety and grief hang heavy on their eyelids, and their imagination is haunted inceſſantly with fearful apprehenſions. The perſpiration and all the ſecretions are diminiſhed, and coldneſs prevails in the extremities. An obſtinate jaundice ſometimes ſupervenes, and when the body is diſſected, the gall ducts commonly are found diſtended with black and ſtagnant bile, which reſembles liquid pitch.

Van Swieten attended a lady in melancholia, who,

after ſhe had often attempted to deſtroy herſelf, lay ſleepleſs with her eyes open, for ſix weeks, during which period ſhe ſcarcely either eat or drank, and never paſſed a ſtool. For the firſt five weeks ſhe made little water, and in the laſt week none. Her tongue and mouth were dry, and her extremities cold like marble. After death no effuſion was diſcovered on the brain, but the veſſels of the pia mater were diſtended with black and pitchlike blood. See his Comments, ſect. 1010.

Foreſtus mentions an old man who had no ſtool for three months.

When nature ſpontaneouſly effects a cure, it is either by inflammatory gout in the extremities, as mentioned by Dr. Whytt in his treatiſe on nervous diſorders; by the hæmorrhoidal flux, as ſtated by Hippocrates, and his commentator Galen; by an irruption on the ſkin, as particularly noticed by the ſagacious Boerhaave; by a diarrhœa, as remarked by Dr. Holme; or by the return of the monthly evacuation, as obſerved by thoſe who are converſant with this diſeaſe.

SECTION III.

OF THE REMOTE CAUSES OF MELANCHOLIA, WITH CASES.

From what has already been delivered, it will appear, that the prediſponent cauſe of melancholia is

is debility, and it will be ſeen, that the occaſional cauſes are ſuch as are directly or indirectly ſedative, and therefore tend to debilitate the ſyſtem. Among the latter may be reckoned violent and long continued mental exertions, with intenſity of thought and protracted vigilance, as in poets and mathematicians. Of theſe, ſome, who are of a peculiar conſtitution, may eſcape with impunity, although, like *Francis Vieta*, the algebraiſt mentioned by Boerhaave, they ſhould paſs whole days and nights ſucceſſively in ſuch profound meditation as neither to eat nor drink, nor ſee, nor hear; yet in general they are the firſt to ſuffer.

The ſame may be ſaid of the intemperate, whether they indulge themſelves in gluttony, drunkenneſs, the uſe of opiates, or in that ſpecies of intemperance which commits greater ravages in the mental faculties than either of the former.

Exceſſive *heat* with immoderate exerciſe, when expoſed to a ſcorching ſun, as in Italy and Spain, will produce the ſame effect.

Even *joy* in the extreme, terminates in *melancholy*. It was obſerved by medical practitioners, A. D. 1720, when the South Sea bubble produced ſpeedy revolutions in the fortunes of the credulous, that by far the greater number of patients were among, not the unſucceſsful, but the fortunate adventurers, and ſuch as were ſuddenly overwhelmed with wealth.

All theſe cauſes are directly ſtimulant, and therefore indirectly ſedative.

Others are directly ſedative.

Such is *cold* with humidity and ſtagnant vapour. Such are viſcid aliments, which containing little matter fit for nutriment, needleſsly oppreſs the ſtomach and the bowels.

The ſame may be ſaid of ill-cured agues, which leave corrupted bile and viſcid mucus in the alimentary canal.

The moſt powerful ſedatives are *grief*, *anxiety*, and *fear*. This may be ſeen in diſappointed ambition, the ruined gambler, the perplexed by litigations, and ſuch as are croſſed in hopeleſs love, who immure themſelves in cloiſters, or wander in the ſolitary ſhade, the victims of deſpair.

Terror, which is ſudden fear in the extreme, produces not only the moſt violent, but the moſt permanent effects. Van Swieten ſaw a lady, who having been exceedingly alarmed by thieves at night attempting to break into her chamber, never loſt that idea for a moment, but was unremittingly afraid, more particularly towards the evening, when ſhe conſtantly began to look round with terror, to tremble and turn pale; and although attended by her ſervants, no ſooner had ſhe cloſed her eyes to ſleep, than ſhe ſtarted up affrighted, ſo that ſhe never could procure refreſhing ſleep. Haraſſed thus inceſſantly by fear, ſhe ſoon became a prey to *melancholy*, and died of that diſeaſe.

Fear

Fear renders the pulſe weak, ſlow, ſmall; checks the reſpiration; leſſens the vital heat; relaxes the ſtomach, and the bowels; impairs digeſtion; deſtroys the appetite; diſturbs the reſt by frightful dreams; brings on paleneſs; diminiſhes perſpiration, or covers the face with cold drops of ſweat; prevents the due ſecretion of the bile, and produces univerſal torpor.

Anxiety and *grief* have the ſame effects, and although ſlowly, yet certainly deſtroy by loſs of tone and relaxation of the ſolids. Profeſſor Hoffmann, contraſting the operation of the paſſions, judiciouſly obſerves, that *anger* quickens the circulation, and drives the blood impetuouſly from the centre to the circumference; *terror* with equal force ſends it from the ſurface to the internal parts, the one producing *fever*, the other *ſpaſm*; but *grief* retards the motion of the blood, and tends to atony.

To exhibit the deleterious effects of fear I ſhall ſubjoin ſome caſes.

A poor man in my pariſh, having loſt the writings of his cottage, ſuſpected that they had been ſtolen, with intention to deprive him of his property, and to turn him out of doors. This idea was for ever preſent to his mind, and haraſſed him inceſſantly. He loſt his reſt, grew thin, talked incoherently, ſaw ſpectres, and had all the ſymptoms of deep melancholy. Yet he continued to earn his livelihood by ſpinning, and when his attention was diverted from his cottage, his converſation was rational.

Two

Two ſiſters, who lived in a lonely cottage, where they attended a decrepit father, being frequently diſturbed and terrified by miſchievous paſſengers, or by ſportſmen with their guns, became timid, and by degrees ſo overwhelmed with fear, that they ſtarted at the falling of a leaf. When I viſited them for the firſt time, I found them clothed in rags, with haggard looks: yet one of them was carding wool, the other ſpinning. The moment I entered, the youngeſt flew at me with an axe, which I fortunately ſeized, and both of them began earneſtly to beg with tears that I would not enliſt them for ſoldiers. This was the ſubject of their fear, and prevented them from aſſociating with human creatures, excepting once a week, when the youngeſt carried in their work to get more wool, and purchaſe in the village a quantity of bread ſufficient for a week. When their father died, they concealed his death, endeavoured to dig a grave for him in their own garden; and when his body became ſo offenſive, that they could no longer bear it, the youngeſt came to requeſt I would aſſiſt to bury him. Notwithſtanding this derangement, they got their living by their labour, and when their attention was for a few moments diverted from the ſubject of their dread, they ſhewed ſufficient ſigns of reaſon.

A gentleman, who had a lucrative office at the cuſtom-houſe in London, and had been uſed to ſpeculate deeply in the funds, met with ſome conſiderable loſs, by which his ſpirits were ſo exceedingly depreſſed, that he obtained leave of abſence for a ſeaſon, and retired to the country. Here the dread of poverty, which had gained poſſeſſion of his thoughts, was increaſed by new apprehenſions, for he became afraid leſt he ſhould loſe his place, and ſuffer an extent on account of ſome contraband goods left behind him in his lodgings. After having paſſed many reſtleſs nights,

nights, he obtained the conſent of his friend to go and remove theſe objects of his terror. He went: hid them in a feather-bed, and returned into the country. But here his terrors were increaſed, for night and day inceſſantly his imagination repreſented officers of the cuſtoms, with informers, ſearching his rooms, examining his beds, and diſcovering what he had ſo carefully concealed. In this ſtate of perplexity and deep diſtreſs, overwhelmed with fear, he watched his opportunity to collect, from time to time, ſuch bits of ſtring as he could find, and at laſt hanged himſelf.

As the ſtomach ſympathizes with every part of the ſyſtem, and is the firſt to ſuffer by any paſſions of the mind, more eſpecially by grief and fear; ſo every part of the ſyſtem, more eſpecially the mind, is drawn into conſent and ſuffers by the affections of the ſtomach. Van Swieten has well deſcribed this action and re-action in the caſe of melancholy. In *Melancholia dum uni et eidem cogitationi inhæret perpetuo mens, naſcitur in corpore humorum cacochymia: contra ubi talis humorum degeneratio ab aliis cauſis nata fuit, uni et eidem cogitationi inhæret homo etiam invitus et repugnans.* Comment. § 1090.

In ſpaſmodic diſorders the connexion between every part of the ſyſtem and the ſtomach has been clearly demonſtrated, as may be ſeen in the preceding volume; and, whoever has paid attention to melancholic patients, will be ſatisfied that the ſeat of this affection is moſt often in the alimentary canal.

Baglivi,

Baglivi, as quoted by Hoffmann, is decidedly of this opinion, and adviſes medical practitioners in all mental diſorders to pay their firſt attention to the ſtomach. To this advice the profeſſor adds; I have frequently obſerved men, who were before of a cheerful diſpoſition, and of a ſanguine temperament, reduced, by diſtreſs of mind, to ſuch a ſtate, that, without any manifeſt and ſubſiſting cauſe for grief, they have ſunk into the deepeſt *melancholy*, conſtantly diſturbed with apprehenſions of impending evil. In theſe circumſtances they complained of flatulence, pain, and diſtention about the præcordia, want of appetite, and coſtiveneſs.

Van Helmont teaches diſtinctly the ſame doctrine, and in his quaint manner ſays, "The archer dwells in the præcordia, and if, in delirium or any ſpecies of inſanity, he aims his arrows at the head, this ſhould not induce the phyſician to direct his attention or to apply his remedies immediately to the brain itſelf; for this would be to reſemble one, who ſhould attack the arrows whilſt he overlooks the archer." Van Helmont however is miſtaken, when he attributes every ſpecies of *delirium* to this cauſe, for, as we have already ſtated, it ſometimes derives its origin from inflammation and mental irritation. The opinion of Galen therefore, when he ſays that in ſome caſes delirium and melancholy ariſe from weakneſs and relaxation of the ſtomach, "*conſentiente principio quod in cerebro et nervis eſt*," ſeems to be more agreeable to truth.

Among

Among the occaſional cauſes of melancholia we have already conſidered the operation of heat, cold, joy, grief, anxiety, and fear. It remains to enumerate ſome others, which have been noticed by practitioners.

When atonic gout, as ſtated by Dr. Whytt, occaſions melancholia, the ſedative effects are firſt perceived in the ſtomach and the bowels. This may be particularly noticed in two caſes related by him in his treatiſe on the nerves, ch. vi. § 17. to which I muſt refer the ſtudent.

The drying up of ulcers ſtands particularly charged by Amatus Luſitanus, as the occaſional cauſe of melancholy. A caſe, which occurred to him, has been referred to, and other inſtances of the ſame nature have been recorded by practitioners. Obſtructed catamenia ſometimes brings on melancholia, and, according to Hippocrates and Galen, the ſame effect has been produced when the hæmorrhoidal flux has been unſeaſonably ſuppreſſed: but they and all the diſciples of that ſchool principally accuſe their *atrabilis*.

SECTION IV.

OF THE PROXIMATE CAUSE OF MELANCHOLIA.

Professor Hoffmann, for the proximate cauſe of melancholy, aſſigns ſtagnation of thick blood

in the weak and flaccid veſſels of the brain: *Sanguinis craſſioris nimius ad imbecille et flacceſcens cerebrum appulſus, ſtagnatio et difficilis progreſſus.* But although the blood moves ſlow in this diſeaſe, there is no reaſon to imagine that it either ſtagnates in the veſſels of the brain, or moves ſlower there, than it does in other parts of the ſyſtem.

Dr. Cullen, taking no notice of this opinion of his maſter, ſeems inclined to attribute melancholia to a præternatural dryneſs and firmneſs of texture in ſome portions of the brain, giving occaſion to inequality of excitement. But my valuable friend Gimbernat, firſt ſurgeon to the king of Spain, after having diſſected more than ſix hundred heads of wiſe men, fools, and madmen, aſſures me, that he never could diſcover any thing remarkable in either texture or colour to diſtinguiſh them. Any preternatural hardneſs in the texture of the brain muſt be conſidered either as accidental, or as the effect, and not the cauſe, of inſanity, for this circumſtance will not aſſiſt us to account either for its ſudden and ſpontaneous ſolution, or its cure by medicine, neither could it lead us to any rational indications.

The ſagacious Boerhaave, treading in the ſteps of Hippocrates and Galen, conſiders *atrabilis* as the cauſe of *melancholia*, and at the ſame time ſtates, that *melancholia* is the cauſe of *atrabilis*. His words are theſe, *Hic morbus oritur ex illa ſanguinis et humorum malignitate, quam* BILEMATRAM *dixere veteres et rurſum idem morbus a mente initium ducens, brevi*

in corpore bene ſano ipſam bilematram facit. Sect. 1090.

From what ſymptoms then does he conclude that *atrabilis* prevails in this diſeaſe?

1. From black ſubſtances, evacuated either by the action of emetics, or by ſtool, and found after death in the inteſtines.

2. From the black pitchlike ſubſtance frequently diſcovered in the bilious ducts, and ſometimes in the ſpleen.

3. From the colour of the blood, becauſe in melancholia the craſſamentum, if covered and preſerved from communication with atmoſpheric or oxygenated air, is of a dark crimſon colour bordering upon black.

The firſt of theſe ſubſtances muſt be either corrupted bile or extravaſated blood.

Fourcroy informs us that he has ſometimes diſcovered a biliary lining in the ſmall inteſtines, black, of the conſiſtence of ſalve, and more than a quarter of an inch in thickneſs. This, by the action of the abſorbents, acquires the toughneſs and tenacity of glue. See the Memoirs of the Royal Society of Medicine at Paris for the years 1782 and 1783.

The ſecond is certainly corrupted bile inſpiſſated by the action of the abſorbents, but by no means

anſwers

anſwers to the idea of Hippocrates, who imagined that two ſpecies of bile, yellow and black, exiſted in the healthy body, and that health itſelf depended on the due admixture of theſe principles.

That the bile ſhould thus concrete, cannot excite our wonder, when we conſider, that it is compoſed of coagulable lymph, animal gluten, the mineral alkali, and a reſinous ſubſtance, according to the analyſis of Jacquin and the beſt modern chemiſts.

As to the colour of the blood, it is now put beyond a doubt by the experiments of Dr. Beddoes, in confirmation of what Dr. Prieſtley had obſerved, that blood receives a florid colour from oxygen, and becomes black when deprived of that pabulum of life.

This circumſtance may poſſibly aſſiſt us to explain the moſt intereſting ſymptoms, as ſtated by Boerhaave, and with ſome degree of probability to ſuggeſt what may be the proximate cauſe of melancholia. Theſe ſymptoms are,

1. *Pulſe* ſlow, ſmall, weak, and the balance of the ſanguiferous ſyſtem on the ſide of the veins. See Cullen's Firſt Lines, § 1589. This proves that the vital energy of the heart is ſo much diminiſhed, as not to balance the natural elaſticity of the arteries. Hence they contract more forcibly than the heart, and protrude the blood into the veins faſter than it can return. The ſlowneſs, ſmallneſs, and weakneſs,

weakneſs of the pulſe ſeem to be proportioned to the diminution of oxygen. When this fails, pulſation ceaſes; and the blood being collected wholly in the veins, the arteries are altogether empty.

2. *Reſpiration* ſlow. The reſpiration ſeems to be governed by the pulſe, as I have already had occaſion to explain, when ſtating the conſent between the heart and lungs. It certainly bears proportion to the demand for oxygen, as may be obſerved in dogs, who have conſumed more than their uſual quantity when in purſuit of game. The more pure the air, the ſlower is the reſpiration; but in proportion as the air is vitiated, either by ſubſtances, which are deſtitute of oxygen, or by thoſe which greedily combine with it, the more laborious is the reſpiration. This may be proved by the breathing of ſome aſthmatic patients, and their cure by well oxygenated air. This we obſerved in the account of a bilious autumnal fever, to which I muſt refer the ſtudent. Since then the reſpiration in melancholia is ſlow, it is evident that the demand in the ſyſtem is ſmall. If more were demanded more would be ſupplied, and reſpiration would be quickened.

3. *Paleneſs.* This univerſally is a ſymptom of debility, and proves that the balance of the ſanguiferous ſyſtem is on the ſide of the veins, or, in other words, that the vital energy of the heart is much diminiſhed. This may be clearly proved by the paleneſs of ſyncope and death.

4. *Perſpiration* and all the *ſecretions* much diminiſhed. Theſe effects naturally follow the weakened energy of the heart, but they do not altogether depend upon that cauſe, for the ſecretions are promoted by oxygen, and ſuffer loſs by its deficiency.

5. *Coldneſs* of the extremities. That vital heat depends on oxygen, is put beyond a doubt by the experiments of Drs. CRAWFORD, BEDDOES, and THORNTON, which prove that it bears proportion to the quantity of this received into the lungs. Heat however is not generated merely in the lungs, but throughout the ſyſtem, wherever there is either muſcular motion or animal ſecretion. The pulſation of the arteries, and the oſcillatory motion of the extreme veſſels, with the ſecretions, being, as already ſtated, all diminiſhed, the vital heat muſt conſequently be diminiſhed to the ſame degree, and this diminution will be therefore moſt perceptible in the extremities, where the quantity of blood is leaſt and its circulation ſloweſt.

6. *Digeſtion* much impaired. This effect ſeems to ariſe from the diminution of the vital heat, for by the experiments of JOHN HUNTER on various animals, which ſleep through the winter, it appears, that the digeſtive proceſs is quickened by heat, and checked, or totally ſuppreſſed, by cold. But if the ſtudent recollects what has been delivered in the firſt volume of this work, on reſpiration and digeſtion, he will be, I truſt, inclined to think that digeſtion

geſtion is promoted by the inſpiration of oxygen, and impeded by vitiated air received into the lungs. Digeſtion however is not produced by either heat or oxygen, but by the gaſtric juice. We have reaſon therefore to conclude, that for want of oxygen the gaſtric juice is either deficient in quantity, as we may be the more inclined to think, when we conſider, that all the ſecretions are diminiſhed, or vitiated in quality, as may be readily conceived, when we reflect, what changes in the whole ſyſtem are produced by air and heat.

7. *Loſs of appetite.* This naturally follows from the deficiency of gaſtric juice. But when the appetite, inſtead of being impaired, is exceedingly voracious, this may ariſe from the ſtimulus of indigeſted ſordes.

8. *Coſtiveneſs.* This likewiſe may be attributed to want of oxygen, for when Dr. THORNTON, as he informs me, made his dyſpeptic patients breathe ſuper-oxygenated air, they not only acquired appetite and ſpirits, but became more regular in their bowels. Oxygen increaſes the ſecretions in general, and therefore may increaſe the quantity of bile, which is the natural cathartic of the body, and at the ſame time, giving tone and vigour to the ſecreting veſſels, it is probable that it may improve the quality of the ſecreted fluid. But independently on this we may obſerve, that the perſpiration being diminiſhed, the determination is naturally increaſed

to the internal ſurface, where at the ſame time, the glands being much relaxed, a ſuperabundant quantity of mucus, of viſcid mucus, is collected, ſo as to ſeparate between the bile and the animated fibre, and thereby prevent the operation of that natural cathartic. It is not however an univerſal ſymptom, or conſtantly preſent in melancholic patients.

9. *Spirits depreſſed.* I have already had occaſion to ſpeak of well oxygenated air as raiſing the ſpirits, and have related the caſe of Mr. Ruſſel; but ſince that period we are favoured with many ſtill more intereſting caſes, in which the ſame effect is frequently remarked. The caſe I chiefly refer to is, that of Mr. Atwood, communicated to Dr. Beddoes, and by him preſented to the public in the ſecond edition of his ineſtimable work, entitled, Conſiderations on the Medical Uſe and on the Production of Factitious Airs; printed for Johnſon, in St. Paul's church-yard. As I very often ſaw Mr. Atwood during the progreſs of his cure, I feel highly intereſted in his journal, where I am happy to obſerve the ſame energetic expreſſions, which I heard him utter, whilſt he was under the care of Dr. Thornton. If then the ſpirits are elated by a plentiful ſupply of oxygen, are we not warranted in our concluſion, that depreſſion of ſpirits may be cauſed by its deficiency? Should we enquire how it happens, that the lungs do not derive a proper ſupply from atmoſpheric air; I might ſimply appeal

to

to facts, leaving others to aſſign the cauſe and to account for this effect. But I ſhall rather make the attempt myſelf, and at the ſame time remind the ſtudent of the hints, which I ventured to throw out in the firſt volume of my work.

Every proceſs in nature ſeems to depend on either attraction or repulſion.

Of attraction, we diſtinguiſh various kinds; the attraction of gravitation; magnetic attraction; the attraction of electricity; and chemical attraction. But beſide theſe we obſerve another, which may be called *vital attraction*. On this depends the growth of the living fibre.

Vegetables attract their nutriment, both by their leaves and by their roots, which in extent are proportioned to each other. Animals go in ſearch of food; but after they have ſwallowed and the ſtomach has digeſted this, the lacteals make their ſelection, and abſorb ſuch parts as are beſt ſuited to nutrition. In them the abſorbents of the alimentary canal, at the different periods of their growth, and the pulmonary air veſſels, bear proportion to each other, and I have already ſtated a relative proportion between the oxygen attracted by the lungs, and the quantity of food digeſted by the ſtomach. If therefore the proceſs of digeſtion is impeded, the attraction for oxygen and its ſeparation from azot, with which it is combined or blended according to Jacquin, in atmoſpheric air, will be diminiſhed. But when the air is overcharged

with oxygen, the quantity ſeparated by the lungs in reſpiration, even in the moſt unfavourable circumſtances, will be increaſed.

Thus we ſee in the burning of a culinary fire, when it is almoſt extinguiſhed; let the atmoſpheric air be overcharged with oxygen, or give it nitre, and the effect immediately produced will be rapid combuſtion with vehement heat and vivid flame; or ſuppoſing the air to have only its uſual proportion of oxygen, let more combuſtible matter, ſuch as ſulphur, ether, ardent ſpirits, or even oil, be added to the fuel, and the effect will be the ſame. In ſome caſes it may be ſufficient merely to blow away the duſt which ſeparates between the combuſtible and oxygen.

Theſe attractions and combinations are governed by the laws of relative affinity, ſome of which, accurately determined by the ſagacious and moſt laborious Kirwan, he has been ſo fortunate as to expreſs by numbers.

In accounting for the coſtiveneſs, I mentioned my opinion, that it might ariſe from viſcid mucus in the alimentary canal. This cauſe, as I am inclined to think, will at the ſame time prevent nutrition, and leſſen, in the ſyſtem, the demand for oxygen, and then we muſt not wonder that the lamp ſhould emit a feeble light. With a plentiful ſupply of oxygen and hydrogen, the flame is bright; but a ſingle drop of water floating on the ſurface of the melted wax, will be ſufficient to cut

off

off the communication and prevent their combination; and ſuch appears to me the effect of viſcid mucus in the alimentary canal.

10. *Jaundice.* This will be conſidered largely in its proper place.

11. *Vigilance.* Of this I have already treated in ſection V.

From all that has been ſuggeſted, I am inclined to think with Dr. Cullen, that in melancholia there is torpor in the motion of the nervous power both with reſpect to ſenſation and volition (ſee his Firſt Lines, § 1589); and this in my opinion ſeems to depend on viſcid mucus lining the inteſtines; for no ſooner is it, by a judicious treatment, cleared away, than vital heat increaſes, the pulſe acquires ſtrength, torpor is relieved, and the ſpirits riſe.

This perfectly agrees with what I have ſtated reſpecting the remote cauſes of melancholia, all which relax the glands of the inteſtines, and produce accumulation of their mucus. And upon this principle, Hoffmann in melancholia approves of antimonials, *Quod ſi enim tenaces, viſcidi et bilioſi in duodeno ſtabulantes humores vomitu evocandi ſunt; flores antimonii egregium pollicentur fructum.* Vol. III. p. 261.

SECTION V.

OF THE INDICATIONS OF CURE IN MELANCHOLIA.

FROM what has been delivered, warranted by experience, it will be found that our indications muſt be,

1. To free the inteſtines from indigeſted ſordes and from viſcid mucus.

2. To excite the vital energy by ſtimulating tonics, and to brace the relaxed fibre by aſtringents.

THE FIRST INTENTION may be anſwered by

a. Emetics, and for this purpoſe we may order,

℞ Pulv. Ipec. gr. 6. Antimon. tartariſat. gr. 3. M. f. Pulv. Emet. mane ſumend. & repet. omni horâ uſque ad vomitionem.

The young practitioner muſt not be ſurpriſed if he ſhould be obliged to give four or five emetics, before he obtains an operation. Dr. Pellet, of St. Alban, whoſe practice in this line is ſo extenſive as to occupy much of his attention, informs me, that for one patient he ordered twenty-four grains of tartar emetic in the ſpace of four and twenty hours, before he could procure an evacuation. At laſt the

operation, which was by ſtool, was moderate, and he recovered. Others have given nearly twice that quantity before they could obtain any viſible effect.

Theſe emetics muſt be repeated every morning for ſome conſiderable time, then twice a week, or ſeldomer, according to the ſlime evacuated. In this diſeaſe, timidity, if combined with ignorance in the medical practitioner, is moſt injurious to the patient; for if after the firſt or ſecond emetic he ſtops ſhort, the glands will be ſoon overcharged with viſcid mucus, and he will have loſt his labour. On this practice Dr. Monro placed his chief dependance.

b. Cathartics. Theſe muſt not be draſtic, becauſe they would defeat our purpoſe in more ways than one; for they would not only increaſe debility, but by powerfully ſtimulating the mucous glands produce a plentiful ſecretion, and conſequently aggravate the ſymptoms they were intended to relieve. The beſt cathartic for our purpoſe is, ſoluble tartar, as preſcribed by Dr. Whytt.

℞ Kali Tartariſat. ʒiij. Solve in aq. font. ℥viij. Cui adde Aq. Cinnamom. Syr. Violar. aa. ℥j. M. f. H. m. s.

That is,

Soluble tartar three drams, diſſolved in eight ounces of ſpring water, with cinnamon water, and ſyrup of violets, of each one ounce. In the morning.

This

This muſt be frequently repeated for weeks or months, if needful; or inſtead of this,

℞ Kali ppt. ℈ij.
Aq. Cinnamom. ℥j.
Syr. Roſ. Rub. ℈j.
Aq. font. ℥ij. M. f. H. bis vel ter die ſum.

That is,

Salt of tartar two ſcruples; cinnamon water one ounce; ſyrup of red roſes one ſcruple; ſpring water two ounces. To be repeated twice or thrice a day.

This practice has been taken from the Germans.

Calomel, in doſes of two to ten grains, given at night, avoiding acids and every kind of medicine which can quicken its operation, is excellent. It commonly lies quiet in the bowels all the night, and when the patient riſes, brings a ſtool, not watery, but of due conſiſtence with fæces, black bile, and viſcid mucus. This in the morning may be aſſiſted by any of the preceding formulæ. It muſt not, however, be exhibited too often, leſt it ſhould either affect the mouth, debilitate the ſyſtem, or ſtimulate too frequently the mucous glands.

For the uſe of emetics and mercurial laxatives in melancholia we have the authority of Boerhaave.

Van Swieten very properly recommends plenty of detergent vegetables, ſuch as are commonly uſed for ſallads at our table, particularly endive, lettuce, cellery, ſpinnage, and dandelion; to which he adds,

adds, with equal commendation, gooſeberries, currants, raſberries, ſtrawberries, and cherries. In ſupport of his recommendation he aſſures us, that he has ſeen patients in the moſt diſtreſſing caſes of melancholia, perfectly reſtored to health by cherries and ſtrawberries alone; of which, refuſing all other food, they devoured more than twenty pounds a day, and that for many weeks together. It is true this enormous quantity of fruit brought on a *diarrhœa*, but then he adds, *per alvum exibat ſoluta* FÆX ATRABILARIA, that is, undoubtedly they paſſed ſtools of corrupted bile and viſcid mucus, after which they ſpeedily recovered; a healthy appetite returned, and, although much weakened by this diſcipline, they ſoon regained their ſtrength. He adduces likewiſe the teſtimony of Hoffmann in favour of a detergent diet, and forbidding the uſe of draſtic purges, he adds moſt judiciouſly, *cum autem picea fere tenacitate viſceribus hæreat atrabilarius humor, non facile purgantibus obedit.* Let the ſtudent conſult the paſſage at large in § 1100 of this learned profeſſor's commentary, and he will comprehend the dilemma, which has perplexed practitioners from the time of Hippocrates to this day. *Si malum perſeverat, fit incurabile: ſi evacuantibus pugnatur, ſani et facile mobiles humores expelluntur,* TENACES *malique hærent, unde pejor morbus.* In this dilemma are involved all the draſtic purges, diſtinguiſhed by the name of *hydragogue*, becauſe they evacuate, not always the natural fæces, but chiefly lymph, and that in great abundance,

abundance, ſo as to increaſe debility. Such are hellebore, ſcammony, colocynth, jalap, gamboge, and aloes, and I have frequently had occaſion to obſerve, when theſe cathartics have been given, that the ſtools reſembled the waſhing of a tub, whilſt the hardened ſcybala have been left behind.

A tepid bath, recommended by Boerhaave and Hoffmann, may be uſed with ſafety and advantage.

THE SECOND INTENTION may be anſwered by bark and bitters, but more eſpecially by chalybeates aſſiſted in their operation by the inſpiration of well oxygenated air.

The myrrh and ſteel, as recommended by Dr. Griffith, may be here uſefully applied. It will be found in page 207 of the preceding volume, where it was preſcribed for phthiſis, but the doctor himſelf informs us, that he had given it in *melancholia*. To the myrrh and ſteel, bark may be added in this form, which may be varied as occaſion ſhall require.

℞ Cinchon. ℥j. Limat ferri. Myrrh. aa ℥ij. Syr. Cor. Aurant. q. s. M. f. Elect. c. c. M. N. M. 1. o. 8. h.

That is,

Bark one ounce; myrrh and ſteel of each two drams; ſyrup of orange peel ſufficient to make an electuary. Doſe the ſize of a nutmeg three times a day.

Or

Or the following may be adopted.

℞ Cinchon. ferri. rubig. aa ℥j. Pulv. Aromat. ℥ij. Conſ. Cort. Aurant. ℥ij. Syr. Zinzib. q. s. f Elect. cujus M. N. M. ter in die ſumend.

That is,

Bark and ruſt of iron of each one ounce; aromatic powder two drams; conſerve of orange-peel two ounces; ſyrup of ginger ſufficient to make an electuary. Doſe as in the former.

In addition to the bark and ſteel, Dr. THORNTON makes his patients reſpire well oxygenated air, and informs me that he has found it efficacious in a great variety of caſes, many of which were more diſtreſſing than that of Mr. Ruſſel recorded in page 292, in the firſt volume of this work.

Mr. Windy having been for ſome time indiſpoſed, became at length perfectly inſane. He was placed in a madhouſe at Chelſea, where for the firſt five months he raved, and after that for four months he ſcarcely ever uttered a ſingle word. When he was removed from this place to be under Dr. THORNTON's care he was gloomy, ſullen, and ſilent, or muttered only expreſſions which evinced what were the terrors of his diſturbed imagination. He had no recollection of his wife or children, and the only notice he took of his attendants, was to manifeſt ſuſpicion that they meant to injure him. He was coſtive, and had remarkable coldneſs of the extremities.

As Dr. Thornton had ſucceeded with the *vital air* in a caſe of hypochondriaſis, he determined to give this air a fair trial in the preſent inſtance. He began therefore with

with giving four quarts of vital air to ten quarts of common air, which produced no change.

He then gave ether and brandy, hoping thereby to increaſe the vital heat, but without the leaſt effect, for his hands continued cold as clay.

Thus diſappointed in his firſt effort to relieve his patient, he gave an emetic in the evening, which brought up a vaſt quantity of viſcid mucus. At bed-time he ordered a calomel pill, which was worked off in the morning with rhubarb, and ſal polychreſt. Having thus cleanſed the alimentary canal, he gave the day following ether and brandy as before, and cauſed his patient to inhale the ſame quantity of vital air, which inſtantly produced a genial warmth extending to his fingers ends. Nor was this a tranſitory effect, for it continued all the time he was under Dr. Thornton's care.

In ten days from this time he became conſcious of the preſence of his wife and children, whom he called by their proper names, walked out and returned home, and, before the month was concluded, recollected the fortune he was poſſeſſed of, ſent for the guardian of his wife and family (Mr. Ledeker, who lives in Greek-ſtreet, Soho), entered minutely into the ſtate of his affairs, and manifeſted other tokens of ſound intellect. His diſpoſition however was depraved by this diſeaſe; no perſuaſions could induce him to continue his remedies; and he ceaſed to be under the influence of fear. He has continued in this way, it is now above eighteen months,; but though the injured underſtanding does not recover its full power, it nevertheleſs ſerves him for all the common purpoſes of life. In two other caſes of melancholia the *vital air* has been employed by Dr. THORNTON with nearly ſimilar ſucceſs.

Some phyſicians have recommended opium as the moſt powerful in this diſeaſe, and have given it in large doſes to remove anxiety, and to bring on ſleep: but the misfortune is, that when the ſtimulant effect is over, the ſedative effect takes place, and the patients ſink lower than before they took this cordial ſoporific. The doſe muſt be then increaſed, perhaps to ten or fifteen grains, and a conſtipation of the bowels is produced. At beſt it palliates one ſymptom, but ſtrengthens the diſeaſe.

It is ſaid that in ſome caſes of melancholia we muſt depend chiefly upon tonics and aſtringents; but theſe I apprehend do not very frequently occur. When they do, the preceding evacuants muſt be uſed with caution.

Exerciſe in the open air, cheerful ſociety, change of ſcene and agreeable purſuits, are the moſt efficacious tonics. Hence nothing in the cure of melancholia is more to be recommended than travelling, which quickens the circulation, ſharpens the appetite, promotes perſpiration, increaſes all the ſecretions, procures refreſhing ſleep, and, completely changing all habits and aſſociations of ideas, puts an end to the delirium. Dr. Mead relates a caſe, which clearly proves the benefit to be received from exerciſe. A fellow of a college, in the laſt extremity of melancholy, ordered his paſſing-bell to toll, and liſtened to the knell with deep attention. Perceiving, however, that the ſexton was a novice in his art, he loſt all patience, roſe from his bed, and crept away

away to church, where he gave inſtructions how to toll the bell and how to ring a peal. From verbal inſtruction he proceeded to ſet the ſexton an example, and having fatigued himſelf effectually, he returned to his chamber and went again to bed. Here he ſlept profoundly, ſweat freely, and, when he awoke, forgot that he was ill.

When this diſeaſe is ſymptomatic of atonic gout, obſtructed catamenia, or the hæmorrhoidal flux ſuppreſſed, attention muſt be paid to the primary diſeaſe.

Hitherto I have mentioned only what is to be preſcribed by the phyſician; but he is not the only perſon who is to contribute towards the cure. The friends of the melancholic patient muſt lend their aſſiſtance to the medical adviſer.

If the diſeaſe originates in grief, in anxiety, in fear, moral arguments muſt not be forgotten.

If ſome idle fancy, having poſſeſſion of the mind, prevents refreſhing ſleep, reſtrains from change of air and exerciſe, or keeps the patient from taking wholeſome food; his friends muſt counteract this fancy, not openly and directly, but ſecretly and with much addreſs.

Boerhaave tells us of a melancholic patient, a counſellor at Paris, who retained his urine, leſt he ſhould deluge the whole city, till his friends raiſed a cry of fire, and prevailed on him to lend his aſſiſtance towards extinguiſhing the flames.

His commentator, Van Swieten, mentions a patient,

tient, who, by immoderate application to his ſtudies becoming deeply melancholic, conceited that his legs were made of glaſs, and therefore cauſed himſelf to be carried from his bed to an armed chair, in which he ſat perpetually before the fire: till the maid-ſervant threw a block of wood upon his ſhins, which excited pain, and with it ſuch indignation, that he forgot the tranſmutation of his limbs, and purſued her in a rage to take revenge. Thus convinced, the imagination left him, and by proper exerciſe he perfectly recovered.

Genus LX. *Mania.*

THE ſymptoms are, an erroneous judgment ariſing from imaginary perceptions, or falſe aſſociations, and producing diſproportionate emotions, with a hurry of mind in purſuing a train of thought, or in running from one train of thought to another, attended with incoherent ſpeech, called raving, and violent impatience of either contradiction or reſtraint.

SECTION I.

THE HISTORY OF MANIA.

THIS diſeaſe is commonly preceded by redneſs in the eyes, headach, quickneſs of hearing, noiſe and

ſinging in the ears, abſence of ſleep, with more than common irritability, manifeſted either by unſeaſonable laughter or by unprovoked diſpleaſure. Its approach may be apprehended when we diſcover unuſual ſuſpiciouſneſs of temper with pride and haughtineſs of carriage, ſtrong ſelfwill, eagerneſs and impatience of contradiction, with capricious likings and diſlikes. Women ſometimes diſcover blood collected in their nipples.

During the paroxyſms of rage and fury, the force of the animal functions is prodigiouſly increaſed, ſo as ſometimes to require four or five ſtrong men to reſtrain its violence, whilſt the vital functions, as appears by the pulſe, are little altered. Perſons in this diſeaſe are remarkable for bearing hunger, vigilance, and cold, without apparent inconvenience. When they refuſe all kinds of food, it is frequently under apprehenſion of treachery and poiſon. Their neareſt relations and beſt friends, the objects of their former attachment and affection, are uſually thoſe to whom they manifeſt the moſt indignant hatred. The unhappy ſufferers, in addition to theſe diſtreſſing ſymptoms, however before diſtinguiſhed for purity and piety, are apt to diſcover the moſt libidinous deſires, and to utter inceſſantly their obſcene and blaſphemous expreſſions. Their eyes ſeldom harmoniſe with the other features of their countenance, but are either fixed, fierce, malicious, or unmeaning. They excel in artifice and conceal their miſchievous deſigns, when they are contriving

to indulge their brutal rage. They are conſcious of their own actions, and perfectly ſenſible to every thing about them of which they retain the recollection.

Mania is either continued or periodical, either without perfect intermiſſions, although it may frequently remit, or returning only by intervals, which may be either ſolſticial, equinoctial, or lunar.

On the decline of the paroxyſm maniacs remain quiet, exhauſted, ſtupid, inoffenſive, gloomy.

It is worthy of our obſervation, that mania has a tendency to cure all other diſeaſes, excepting thoſe which immediately affect the brain: and that perſons ſuffering by this, are not liable to receive infection during the prevalence of any epidemical diſeaſe.

The natural and ſpontaneous ſolution of mania merits our attention and may direct our practice. It has been known to terminate by a copious bleeding of the noſe, by the menſtrual or by the hæmorrhoidal flux, by diarrhœa and dyſentery, by cuticular eruptions, and by the breaking out of ulcers. Intermittent fevers have produced the ſame benign effect. It has given place to dropſy, for theſe two diſeaſes can ſcarcely ſubſiſt together. Pregnancy is favourable according to the axiom of Hippocrates, Si conceperint, ſanæ fiunt. When mania terminates fatally, it is by *phrenitis* commonly, ſometimes by *epilepſy*, or ſhould it be protracted, after repeated paroxyſms, the patient loſes both underſtanding and memory, and becomes an idiot.

SECTION II.

OF THE SPECIES OF MANIA.

HOFFMANN was of opinion, that there is but one ſpecies of mania, and that this differs only in degree from its parent melancholia.

Boerhaave partly agreed with him, and aſſerted in general terms, *Si melancholia eouſque increſcit, ut tanta accedat agitatio liquidi cerebroſi, qua in furorem agantur, ſævum mania vocatur. Quæ gradu modo differt a melancholia triſti; hujus proles eſt; ex iiſdem cauſis oritur; iiſdem fere remediis curari ſolet.* § 1118, 1119. Yet he afterwards diſtinguiſhes three ſpecies of mania, requiring different indications of cure.

Theſe eminent profeſſors are wrong in ſtating mania and melancholia to be one of the ſame diſeaſe, differing only in degree. Certain it is, that melancholia very frequently, as I ſhall have occaſion to ſhew, runs up into mania; yet we have inſtances of mania, wholly and permanently diſtinct from melancholia.

Dr. Cullen has made this diſtinction, and has at the ſame time ſuggeſted an idea of two ſpecies of mania, according as it appears in the melancholic, or in the ſanguine temperament. § 1574.

His idea is certainly well founded, and leads to practical improvements in the uſual treatment of maniacs;

maniacs; yet we cannot help expreſſing our ſurpriſe, that he ſhould have diſcovered any heſitation in making this diſtinction, when he found it ſo clearly marked in the aphoriſms of Boerhaave.

In his noſology, Dr. Cullen has three ſpecies,

1. Mania *mentalis* omnino a pathemate mentis.
2. Mania *corporea* a vitio, corporis evidente.
3. Mania *obſcura* prægreſſo nullo vel pathemate mentis vel vitio corporis evidente.

And for theſe diſtinctions likewiſe there is ſome foundation; but as my plan is to aſſiſt the young practitioner, I ſhall in my arrangement fix upon ſuch ſpecies only as require medical diſtinction. Theſe are to be found in Boerhaave; but as it will be needful at all hazards to give them names, I ſhall venture to call them,

1. Mania *melancholica*.
2. Mania *phrenitoides*.
3. Mania *hyſterica*.

MANIA MELANCHOLICA eſſentially agrees with Hoffmann's *delirium melancholicum et maniacum*, and with the firſt ſpecies of mania deſcribed and treated of by Boerhaave in his aphoriſms, from § 1119 to § 1124. It alſo perfectly coincides with Cullen's idea in his Firſt Lines, § 1574.

My two other ſpecies are comprehended in what he would have denominated *mania ſanguinea*; but if, in deference to his ſuggeſtion, I had adopted that appellation, there ſtill would have been room for a diſtinction. This diſtinction of two ſpecies, both belonging to the ſanguine temperament, is marked, as I ſhall prove, by Sydenham, by Boerhaave, and by his learned commentator. In the mean time I muſt requeſt the ſtudent to recollect what I have delivered on the *ſanguine temperament* in the third ſection of the order ſpaſmi, where it appears that, in proportion to the tenſion or laxity of the ſimple ſolids, we may in this temperament expect either *inflammatory* or *ſpaſmodic affections*. The ſtudent may likewiſe recollect that, in my obſervations on *apoplexia*, a diſeaſe which has ſome affinity to mania, becauſe in it there is a determination to the head, he had a glimpſe of the ſame diſtinction in the *apoplexia ſpaſmodica* of HOFFMANN, which, as I ſtated, ſtrictly ſpeaking, is a ſpecies of *apoplexia ſanguinea*.

Theſe therefore are the ſpecies I ſhall labour to eſtabliſh, as requiring each of them a diſtinct mode of treatment. For the *mania mentalis* of CULLEN I ſhall reſerve a ſeparate ſection. His ſpecies of inſanity, which he deſcribes in § 1576 to 1581, and for which he was unable to find a generic term under his order of VESANIÆ, can ſcarcely be conſidered as a diſeaſe. Sauvage has called it *melancholia moria*; but,

but, as it is attended with agreeable impreſſions, the man when cured may ſay to his phyſicians,

Pol me occiditis, amici,
Cui ſic extorta voluptas,
Et demptus per vim mentis gratiſſimus error.

I once ſaw an inſtance of this, I was going to call it delightful melancholy, in a reverend divine, who took to a ſedentary, ſolitary life, and fared ſumptuouſly every day. He was perfectly rational in his diſcourſe, unleſs when you aſked him how he did; but then he felt fatigued after hunting with the king, or he had rather drank too much Burgundy whilſt dining with the prince, or was ſomewhat troubled with the colic after feaſting on the moſt delicious melons ſent him by the empreſs: in a word, he was always overwhelmed with ſome felicity.

SECTION III.

OF MANIA MELANCHOLICA.

THIS ſpecies of *mania* is commonly preceded by and alternates with *melancholia*. For the general ſymptoms, therefore, we muſt refer to what has been already ſtated *as the ſymptoms in both thoſe diſeaſes*. But in addition to theſe we may obſerve with Boerhaave, that in this ſpecies of mania, all the ſecretions and excretions fail or become exceed-

ingly diminiſhed. Such patients obſtinately refuſe both meat and drink for a conſiderable time; their mouth is dry, their urine is little in quantity, and, if they take nouriſhment, it moves ſlowly through the inteſtinal canal, where the abſorbents take up all that is fluid. Hence the fæces are ſmall and hardened ſcybala, and remain collected in the greater guts. Vide § 1122 of Boerhaave's aphoriſms. Sauvage attended one in this diſeaſe who refuſed every kind of ſuſtenance, except tobacco, for forty days, and conſequently had little or nothing to paſs by the excretions.

The prediſponent cauſe is debility, increaſed by indolence; and the occaſional cauſes are commonly anxiety and grief, intemperance, deep ſtudy, violent paſſions and emotions, with diſappointed love, and wounded pride. But the moſt uſual cauſe is fear, for, as SAUVAGE has well expreſſed himſelf, *Maniaci, utcunque audaces ſint, reapſe metu maximo quodam ad inſaniam fere omnes ducuntur.*

As to the proximate cauſe of mania, various opinions have been delivered; but thoſe of the beſt maſters eſſentially agree. Hoffmann conceives it to be a vehement and impetuous circulation of denſe and melancholic blood through the weakened and flaccid veſſels of the brain. Dr. Cullen is inclined to think it is increaſed and unequal excitement in the brain.

That in mania there is a preternatural determination to the head, is evident by the redneſs of the eyes,

eyes, and may be put beyond a doubt by preſſing the carotid arteries of a maniac in the way firſt communicated to the public by my ingenious friend Dr. Parry of Bath. This operation requires ſome dexterity, but I have known it tried by many, and particularly by a diſtinguiſhed ſurgeon, Mr. Hill, of Great Ruſſel-ſtreet. The mania inſtantly ceaſes, and for the time reaſon reſumes her empire.

Whence then ariſes the preternatural excitement in the brain? Certainly from this undue determination of blood to the ſuperior regions, and from its impetuous circulation in the veſſels of that organ. Should the ſtudent again inquire what cauſes this determination of blood to the ſuperior regions; I can anſwer with confidence, that in *mania melancholica* it ariſes from affections of the alimentary canal. In confirmation of this opinion, I muſt requeſt the ſtudent, who wiſhes to have clear and diſtinct ideas of the cauſe, before he attempts to cure this deplorable diſeaſe, to conſider what I have ſaid in the ſection on delirium, and in that which treats of the remote cauſes of melancholia, all which agrees with ARETÆUS, who ſays that the principal ſeat of mania and melancholia is in the inteſtinal canal.

Boerhaave has diſtinctly marked a connexion between mania, melancholica, apoplexia, and epilepſia, as relates to their occaſional cauſe, *Si melancholia diu perſeverat, producit dementiam* EPILEPSIAM, APOPLEXIAM, MANIAM, *convulſionem, cæcitatem, &c.* § 1109. Now if the ſtudent will take the trouble to conſult

conſult what I have delivered on the proximate and occaſional cauſes of apoplexy and of epilepſy, or if he will conſult what Hoffmann has written on thoſe moſt intereſting ſubjects; he will be ſatisfied, that although in *mania melancholica* the archer has directed his arrows to the head, he himſelf, as I ſhall endeavour to explain in the fifth ſection, has taken his ſtation in the alimentary canal.

In practice it is frequently curious to obſerve, when fluſhing of the face with heat, pulſation of the arteries felt by the patient in his brain, and a ſenſe of coldneſs in his feet, all proving a ſtrong determination to the head; how ſoon theſe ſymptoms are relieved, and the equilibrium in the circulation is reſtored, ſometimes by a gentle emetic, and at other times by one doſe of calomel, producing copious evacuation of fæces, of viſcid mucus, and of bile.

It is of this ſpecies of mania in particular that Boerhaave ſays, *Fruſtra tentatæ per omnia remedia, varix, hæmorrhois, dyſenteria, hydrops, hæmorrhagia magna ſpontanea, febres tertianæ, quartanæve, accedentes, ſalutaria fuerunt.*

From all that I have ſtated, it will follow that the indications of cure muſt be,

1. *To leſſen the determination to the brain, and thereby to moderate the preternatural excitement of that organ.*

2. *To remove the material and occaſional cauſe of that determination by reſtoring the natural ſecretions.*

3. *To*

3. *To ſtrengthen the whole ſyſtem, more eſpecially the alimentary canal and the veſſels of the brain.*

Theſe indications coincide with thoſe of profeſſor Hoffmann, and I am happy to find that they agree with thoſe alſo of the moſt diſtinguiſhed practitioner in this line, Dr. FOART SIMMONS, phyſician to St. Luke's.

To anſwer the two firſt intentions, we begin with emetics and cathartics, preciſely as recommended in melancholia, to which I muſt beg the attention of the ſtudent. In this all the beſt practitioners, ancient and modern, are agreed. Dr. Monro aſſures us, that the evacuation by vomiting is infinitely preferable to any other. The prodigious quantity of phlegm, with which patients in this diſeaſe abound, he ſays, is not to be got the better of but by repeated emetics. Nor have purgative medicines their right effect, till the phlegm is broken and attenuated by frequent emetics. He mentions inſtances of inveterate caſes cured wholly by emetics and a proper regimen. Dr. Marryat of Briſtol, who was remarkably ſucceſsful in his extenſive practice, gave powerful emetics every morning.

The *emetic* muſt be adminiſtered with a liberal hand; for, whether it be, that a more powerful irritation in the brain diminiſhes the irritability of the alimentary canal, or that a viſcid and tenacious mucus lining the ſtomach and the bowels is interpoſed between the medicine and the animated fibre, certain

certain it is, that theſe maniacs require the ſtrongeſt doſes of emetics to procure an operation. Hence it happens frequently that ſix or ſeven grains of tartariſed antimony muſt be repeated five or ſix times, at ſhort intervals, to produce effect.

When I was laſt winter at Southampton, a Guernſey merchant was brought by his keepers to be confined in a madhouſe, but fortunately for him and for his friends, a young apothecary of my acquaintance, who, on his being landed in a furious ſtate, was conſulted where to place him, gave him before night twenty-nine grains of tartariſed antimony, which brought up a great quantity of viſcid mucus, and the next morning he was calm and recollected. What became of him afterwards I was not informed.

Dr. Cox relates a caſe, in which after tartariſed antimony, he had adminiſtered a decoction of digitalis, made from the dried leaves, in the proportion of one ounce to three half pints of water, giving three ſpoonfuls every three hours. This brought up a great quantity of viſcid phlegm, and the ſubſequent nauſea continued for two days, when a ſecond exhibition produced the ſame effect; after which a third, with the aſſiſtance of opium at night, in nine days effected a cure.

The *cathartics* muſt be gentle; as the intention is not to procure a copious diſcharge by draſtic purges, but to evacuate quietly the hardened fæces, and the tough offending mucus. The uſual cathartics are, as already ſtated in melancholia, either kali ppt.

or

or kali tartariſatum. Theſe may be given in the manner there preſcribed. Calomel is excellent, but the cautions ſuggeſted in melancholia merit attention in its exhibition.

Sir Clifton Wintringham recommends the following:

℞ Rad. Helleb. nigri. Kali tartariſat. aa dr. 2. Fol. Sennæ, un. ½. Aq. font. ℔j. Coque & adde Oxym. Scillæ, dr. 3. Syr. e Spin. Cervin. dr. 6. M. c. c. o. 4. h. q. s. ad nauſeam ciendam.

That is,

Black hellebore and tartartiſed kali, of each two drams; ſenna half an ounce; water a pint; boil and add oxymel of ſquills three drams; with ſyrup of buckthorn ſix drams. Mix. Take of this every four hours ſufficient to keep up a nauſea.

This proves cathartic, and evacuates the viſcid mucus. Every night he gives half a dram of camphor.

The tepid bath is ſtrongly recommended, and may be uſefully applied to the feet and legs, if the heat is not too much increaſed, for the heat of 96 is uſually ſedative, relaxes the extreme veſſels, conſequently the whole ſyſtem, and produces a derivation from the head. With this degree neither the heat of the body nor the frequency of the pulſe are changed, but the urine and perſpiration are increaſed. When the heat riſes up above this degree, it is ſtimulant, quickens the pulſe, and produces a

determination to the head. In ſome experiments, recorded by the ingenious Dr. Duncan in his Medical Commentaries, a heat of 102° raiſed the pulſe from 60 to 92, and the heat of the body from 96° to 100°, producing at the ſame time a fluſhing of the face at 106°, the pulſe became quicker, the face was more fluſhed, the veins were ſwelled, and in five minutes vertigo came on.

In a caſe of mania melancholica, in which I was lately conſulted, the patient ſuffered when the heat of the bath roſe above 95; when it was at 97 ſhe had ſtrong fluſhing in her face and became very furious, and with a higher degree of temperature, although ſhe only put her feet in water, her face fluſhed, and from being reaſonable, ſhe became violent in leſs than a quarter of an hour.

Galen aſſerts, that he has effected many cures both in mania and melancholia, merely by means of the tepid bath; and no one can entertain a doubt of its utility in promoting a derivation from the head.

In this ſpecies of mania Boerhaave recommends ſudden and long continued ſubmerſion in the ſea. *Precipitatio in mare, ſubmerſio in eo continuata, quamdiu ferri poteſt, princeps remedium eſt.* This practice was ſuggeſted by an accident, when the carpenter of Antwerp, who was raving mad, broke his bonds, and threw himſelf into a deep pool; but, being taken out again to all appearance dead, not only revived, but recovered inſtantly the uſe of reaſon,

which

which he enjoyed to the day of his death at the diſtance of eighteen years. From the propitious event in the caſe before us, Van Helmont derived his practice of keeping his patients under water whilſt he repeated the *miſerere*, and Boerhaave after him adviſes to have the maniac kept in that ſituation till he is almoſt drowned, availing himſelf thus of three powers, all ſtrongly ſedative, fear, continued cold, and the excluſion of vital air from the lungs.

To anſwer the third intention we muſt have recourſe to bitters, bark, and ſteel, preciſely as recommended in melancholia. To theſe muſt be added exerciſe in the open air and change of ſcene, which may be beſt procured by travelling. By theſe means we ſhall reſtore tenſion and tone to the relaxed ſolids, more eſpecially in the ſtomach, and in the whole of the alimentary canal.

Dr. Cullen recommends reſtraining the angry paſſions by fear, and preventing the effects of them by force: but my obſervations on this ſubject will be found in the ſixth ſection by themſelves.

To render what I have delivered more uſeful to the ſtudent, I ſhall here ſubjoin two caſes from the ineſtimable works of Hoffmann.

Case I.

An eccleſiaſtic, aged 37, of the melancholic temperament, for many years had every month the hæmorrhoidal flux, during which time he enjoyed his health. But when, neglecting exerciſe, he purſued his ſtudies even beyond the middle

middle of the night, and in addition to this, met with domeſtic trouble; the hæmorrhoidal flux diminiſhed and ultimately failed. Soon after this he became hypochondriacal, and was troubled with flatulence, obſtinate coſtiveneſs, and dyſpeptic ſymptoms. By degrees he became timid, when he had no cauſe to fear, ſuſpicious, fond of ſolitude, wakeful in the night, or diſturbed with frightful dreams, and continued almoſt inceſſantly muttering to himſelf. At times he became violent. This man was cured by tepid pediluvia, and the uſe of neutral ſalts, given in the following form.

℞ Pulv. ex lapid. Cacr. Kali vitriolat. Cremor Tart. Nitri, aa dr. 2. Cinnab. ppt. dr. ½. Ol. Cumin. gtt. 6. Liquor. Anodyn. Mineral. gtt. 20. Aq. font. un. 8. M. alternis diebus ſum.

That is,

Crab's claws, vitriolated tartar, cream of tartar, nitre, of each two drams; cinnabar ppt. half a dram; oil of cummin ſix drops; Hoffmann's anodyne twenty drops; ſpring water eight ounces. To be given every other day.

Case II.

A Jew of the melancholic temperament, aged 40, ſtudious and given to a ſedentary life, hearing ſuddenly of the death of his ſon, became gloomy, affected ſolitude, and was ſo coſtive as to have ſtools only once a week. His lower extremities were cold, and his reſt was exceedingly diſturbed. At the end of ſix months, being terrified, he became furious, and refuſed both food and medicine, but by veneſection his mania was ſubdued, and melancholy alone remained. This man

man was reſtored to health chiefly by the vegetable ſalts and the tepid pediluvium, with exerciſe, freſh animal food, and generous wine.

If the ſtudent will take the trouble to look at the *examinations* on a caſe in which the whole nation felt deeply intereſted, he will ſee, that the cure was effected by copious evacuations, after which tonics and aſtringents were preſcribed to reſtore the ſtrength.

In all the caſes, with which Dr. Pellet of St. Alban's has been pleaſed to favour me, the cures were conducted on the ſame plan, and confirm the ſyſtem I have endeavoured to eſtabliſh. Theſe, however, although highly intereſting, are not reported ſufficiently in detail for the public eye. His well approved integrity, humanity, and ſkill, muſt continually increaſe his practice in this line, and ſhould he have leiſure to report his caſes, they will be a valuable acquiſition to the medical practitioner.

SECTION IV.

OF MANIA PHRENITOIDES.

THE perſons moſt ſubject to this ſpecies of mania, are not, as in the preceding, of the melancholic, but of the ſanguine temperament. It may be readily diſtinguiſhed by ſymptoms of plethora, by firmneſs and fulneſs of the pulſe, by increaſe of heat,

eſpecially in the ſuperior regions, by fluſhing of face with redneſs of eyes, by ſtrong pulſation in the temporal and carotid arteries, and by the occaſional cauſes being ſuch as either produce ſudden rarefaction of the blood, or ſtrongly promote its determination to the head.

This ſpecies, which with the preceding and the ſubſequent, although diſtinguiſhed by Boerhaave, have never yet been named, I have ventured to denominate *mania phrenitoides*, becauſe from an attentive conſideration of the ſymptoms, of the remote cauſes of its natural termination, and of the means which are moſt effectual for its relief, I am inclined to think that there is local inflammation, although not ſufficient to draw the ſyſtem into conſent, and produce a fever with delirium as in the true phrenitis. In the delirium of phrenitis, the patient does not diſtinguiſh perſons, nor is conſcious of external objects, unleſs excited by ſome powerful ſenſation, and then he ſoon relapſes; but in mania he is perfectly ſenſible of every thing around him, and retains both conſciouſneſs and recollection: yet the affinity between the diſeaſe in queſtion and phrenitis will appear from hence, that they very frequently run into each other; phrenitis produces mania; and mania, when fatal, terminates in phrenitis. I am ſupported in my opinion by Van Swieten, who informs us, that he has often obſerved a ſlight fever and delirium ſucceeded by the moſt furious mania; and this effect he attributes to inflammation

ſlammation of the meninges, and of the cortical ſubſtance of the brain. See his Comment. § 774, and the *phrenitis apyreta* of Sauvage.

The occaſional cauſes of this mania may be ſuppreſſed evacuations and eruptions, pregnancy, poiſons, and heat, with violent paſſions and emotions in plethoric habits.

For the proximate cauſe I would aſſign a preternatural determination of blood to the veſſels of the brain.

According to this view of the ſubject our indications muſt be to leſſen the determination to the brain, and to moderate the preternatural excitement of that organ. To anſwer theſe intentions,

1. We muſt diminiſh the general tenſion and tone of the arterial ſyſtem, which may be accompliſhed by the antiphlogiſtic regimen; by veneſection and a vegetable diet, aſſiſted by evacuants, ſuch as emetics, cathartics, diaphoretics, and diuretics.

In this we are ſupported by the authority of Boerhaave, who ſays, *Mania vero enata in robuſtis, vegetis, floridæ ætatis, plethoricis, calidis, ſanatur miſſione ſanguinis iterata; purgatione forti inter ſingulas interpoſita; dein, impetrata ſedatione, opiatis et cardiacis.* Aphoriſms, § 1127.

In bleeding, the blood may be taken either from the temporal artery, as ſtrongly recommended by Hildanus, who aſſures us that he has ſeen many ſpeedy cures performed by this alone, or it may be

drawn from a vein, according to the uſual practice of the preſent day. In this caſe Dr. Cullen adviſes us to take ſuch a quantity of blood as may nearly bring on a deliquium animi.

The emetics ſhould be frequently repeated, more eſpecially when, by the evacuation, it is evident that the mucous glands are loaded. This may be compoſed of tartariſed antimony with ipecacuanha in ſufficient quantities, or to theſe may be added oxymel of ſquills; or any of the formulæ, from No. 1 to No. 5, of my Phyſician's Vade Mecum, may ſerve the purpoſe.

Bernard Huet, a celebrated practitioner, whoſe method of cure is recorded by Wepfer, and highly approved of by Van Swieten, was fond of the more draſtic cathartics, ſuch as are denominated hydragogue. Theſe he exhibited once a week, and this practice, although perhaps not the beſt, is frequently adopted. Among the hydragogue cathartics we may reckon ſena, aloes, jalap, ſcammony, colocynth, gamboge, which are given either ſeparately in appropriate doſes, or variouſly combined. To theſe, either calomel or tartariſed tartar are occaſionally added. The former, when given, ſhould be exhibited at night alone, in the doſe of three to ten grains, and may be the next morning aſſiſted in its operation by the following.

℞ Tinct. Aloe. c. un. ½. Infuſ. Sen. un. 1. Kali Tart. dr. 2. M.

Or,

Or,

℞ Extract. Colocynth. comp. gr. 6. f. Pill. m. s.

Or,

℞ Scammon. G. Guaiac. aa ſcr. 1. Aq. Cinnam. Syr. Roſæ aa dr. 2. M. f. hauſt. m. s.

But the neutral ſalts appear to me moſt ſuitable to this diſeaſe.

As a diuretic in this ſpecies of mania, digitalis has high pretenſions, becauſe no medicine ſo rapidly evacuates water, or ſo ſpeedily as a ſedative ſinks the pulſe. We have already ſeen it given by Dr. Cox as an emetic, but as a diuretic we muſt moderate the doſe, and be contented with one or two grains of the powdered leaves twice a day.

Diaphoretics are ſtrongly recommended, and ſhould the practitioner have recourſe to them, he may either give Dover's powder, or the compoſition recommended by Doctor Whytt.

℞ Tinct. Opii. gtt. 40. Tinct. Ipecacuan. gtt. 45. Ammoniæ acetat. un. ½. Aq. Roſar. unc. 1. Sacch. Alb. dr. 2. M. m. h. s. s.

Doctor Locker, of Vienna, aſſures us that he cured eight patients by diſtilled vinegar given to the quantity of an ounce and an half every day, for three months, which acted as a diaphoretic, and the more it ſweated the ſooner they were cured. I have not heard, whether this practice has been

adopted in England; but I am inclined to think favourably of it, where the vital heat is preternaturally increaſed.

Doctor Cullen informs us that ſome maniacs have been cured by being compelled to hard and conſtant labour. This does more than divert the attention, for it exhauſts the irritability and induces *ſleep*.

2. When mania is occaſioned by obſtructed catamenia, emmenagogues muſt be reſorted to; but in this ſpecies recourſe muſt be had, in the firſt inſtance, to thoſe which are evacuant; in the ſecond to ſuch as are antiſpaſmodic; and in the laſt place, only to the tonic and aſtringent. The hæmorrhoidal flux may be aſſiſted by aloetics and by leeches.

3. To promote a derivation from the head, ſome have depended on cold induced either by a bag of ſnow, by cold water falling from a height directly on the head, or by a moiſt clay cap; but Celsus made an improvement on this plan, and cauſed his patients to ſit in a warm bath of oil whilſt they had cold water poured upon their heads. This operation ſeldom fails to procure ſleep, which in many caſes has continued more than thirty hours.

4. Some practitioners place their chief dependance on ſedatives to diminiſh the preternatural excitement of the brain.

At the head of this laſt, as the moſt natural ſedative,

dative, ſtands hard labour. Bernard Huet was accuſtomed to rely on opium, of which he gave two grains twice a day, and if by this doſe he failed to bring on ſleep, he increaſed it gradually, even as far as fifteen grains, till he obtained his end in the ceſſation of the furious fit. Sydenham followed his example, for after repeated venæſection, he gave once a week a draſtic purge, and in the intermediate ſpace, Venice treacle (*theriaca andromache*) in conſiderable doſes. This practice has been puſhed to the greateſt length by Drs. Brandreth, Binns, and Currie; the latter of whom is ſaid to have given, with remarkable ſucceſs, two ſcruples of ſolid opium at one doſe, and at the diſtance of four hours one ſcruple more. The patients, who took this enormous quantity of opium, are reported, from the moſt violent furor, to have been rendered thereby in a few hours perfectly calm and rational.

The celebrated Dr. Dobson in one caſe gave a ſcruple of *camphor* every three hours, which in twenty-four reduced the pulſe from 80 to 70. The next day he gave three drams in twelve hours, which brought on profuſe ſweating, ſunk the pulſe to 55, and cured the diſorder.

Encouraged by this ſucceſsful uſe of camphor, Dr. Oliver gave two ſcruples for a doſe. In a quarter of an hour the *maniac* fell down inſenſible; but from that time recovered ſo as to attend his duty in parliament. At the end however of about eighteen months he became *hypochondriacal*, and

ſoon after ſunk into *melancholia.* He then repeated the ſame doſe, and in ten minutes became pale, and ſick, reeled into the arms of his phyſician, drooped his head and diſcharged by his mouth a quantity of thick viſcid rheum: his reſpiration became laborious, his pulſe weak and intermitting, till he broke into a ſweat. He got no reſt till the next day, when a ſleep of eight and forty hours commenced, accompanied by ſweat. The camphor was then continued in doſes of ten grains twice a day, till the patient was well enough to go into the country.

This intereſting caſe may be ſeen at large in the fifth volume of the medical journal. Sennertus and Riverius combined nitre in a large proportion with the camphor. Some patients are ſaid to have been cured by mercurial ſalivation, but this method has been ſeldom reſorted to.

It is in this ſpecies of mania that my valuable friend Dr. THORNTON has propoſed to try the inſpiration of hydrogen, of carbonated hydrogen, or of azotic air. Theſe are certainly the moſt powerful *ſedatives*, and as ſuch may be fairly ſubjected to trial.

5. After the diſeaſe has been ſubdued, it will be proper to give Peruvian bark and bitters to ſtrengthen the ſyſtem, but as to chalybeates, I ſhould exhibit them with caution. For the formulæ I may refer to melancholia.

To elucidate this moſt intereſting ſubject, and that I may render the diſtinctions I have made familiar to the ſtudent, I ſhall ſubjoin ſome caſes.

Case I.

A military prefect of the ſanguine temperament, and a hard drinker from his youth, when he was turned of forty loſt his wife, who was beautiful and much beloved. Such, on this occaſion, was his diſtreſs, that he could neither eat nor ſleep, but ſoon loſt his ſenſes, and became furious in the extreme. Having been however copiouſly bled three times within the month, and taken nitre, ſome remiſſion of his diſorder, but no perfect intermiſſion, was obtained. In this ſituation, with conſtipation of bowels, fluſhing of face and fulneſs of its veſſels, to which were added inceſſant vigilance and raving, Hoffmann was conſulted.

This eminent profeſſor, with a view of making a derivation from the diſtended veſſels of the brain, in the firſt inſtance evacuated the alvine fæces by gentle laxatives, for, as he moſt judiciouſly obſerves, *a determination to the head never fails to be ſupported by conſtipation of the bowels. In curatione eo potiſſimum reſpeximus,* UT SANGUINIS IMPETUS A CAPITE DIVERTATUR; QUI VERO QUUM AB ALVI OBSTRUCTIONE NUNQUAM NON SUSTENTETUR, *primo omnium præſcripſi laxans mannatum & lac recens emulctum. Quod in præſenti ægroto inſignem alvum laxandi exſeruit efficaciam.* Nitre was given frequently during the day, and before he went to bed his feet were put into a tepid bath. For his common drink he had ſpring water, and his head was kept moiſt by the ſubſequent compoſition.

℞ Aq. Roſar. Aceti Roſar. aa un. 2. Nitri purificati dr. 2. Ol. lig. Rhodii, gtt. 12. M. f. Epithem.

Within the month this patient was perfectly recovered.

Case

Case II.

A young man aged ſeventeen, of the ſanguine temperament, had for twelve months, by intenſe and unremitted application of mind, laboured to diſcover the perpetual motion, when being reſtrained by parental authority from his favourite purſuit, he gave way to ſilent grief. In this ſituation he was ſuddenly alarmed by fire and went raving mad. His pulſe was frequent, yet his bowels were regular, and his appetite was good.

Hoffman ordered blood to be taken from his feet and from the ſublingual vein, gave him nitre with camphor, and made him bathe his feet in tepid water, all which ſoon produced ſuch a wonderful effect, that the profeſſor ſoon perfected a cure.

Case III.

D. M. of the ſanguine temperament, aged thirty-ſeven, was ſeized in the winter of 1790 with mania, and raved night and day inceſſantly for eight days. Pulſe full and ſtrong, tongue clean, eyes wild and ſtaring, his ſtrength ſo much increaſed, that even when he had the ſtrait waiſtcoat on, three men could ſcarcely reſtrain his violence, and his mental exertions, though erroneous, were extremely vigorous. What occaſioned this derangement, his phyſician, Dr. Nankivell, of Cannon-ſtreet, London, could not conjecture, except that probably young Bacchus might have had an hand in it, for D. M. at times had no mercy on the bottle.

The antiphlogiſtic regimen to its fulleſt extent was immediately adopted. He was bled plentifully. The blood exhibited no ſign of inflammation. His head was ſhaved and cupped and bliſtered. His bowels were kept freely open with

with neutral ſalts. He had no food, but bread, tea, and gruel, with cold water for his only drink. He was laſhed down in a ſtrait waiſtcoat on a mattraſs with very little covering, and no other companion but his keeper, who never ſpoke to him, unleſs when abſolutely needful. His room was darkened. From the beginning Dr. Nankivell ſtrongly impreſſed his mind with fear, both for the ſake of its ſedative effects and to ſecure obedience.

In this plan he perſevered for ſeven days without perceptible alteration in the ſymptoms. On the eighth day the ſcalp was covered with a moiſt clay cap, whilſt the feet were bathed in tepid water. This application was continued more than half an hour, when the cap being removed, he was replaced in his cool hard bed, where he fell immediately aſleep, and ſlept profoundly for three and thirty hours.

When he awoke he was clearly convaleſcent, but ſtill raved. On the evening of the tenth day, recourſe was had again to the cold clay cap, and warm pediluvium; but in about four minutes he was ſeized with an *hyſteric fit*, which being noticed by his ſagacious phyſician, the ſtrait waiſtcoat was ordered to be taken off, and he was pronounced to be, what the event proved, free from *mania*. The clay cap was inſtantly removed, and the patient being put into his bed, ſlept ſoundly for many hours. When he awoke he was perfectly calm, recollected, and reſtored to the exerciſe of reaſon, and from that time he has conſtantly enjoyed the *mens ſana in corpore ſano*.

SECTION

SECTION V.

OF MANIA HYSTERICA.

THIS ſpecies may be diſtinguiſhed from the two former by its common ſymptoms of debility, irritability, and ſpaſmodic affection, and not unfrequently by vividneſs of imagination.

The perſons moſt liable to it are thoſe of an irritable fibre and of a relaxed habit, that is, ſcrophulous and hyſterical ſubjects, more eſpecially if they have been previouſly weakened by diſeaſe. It has the ſame affinity to the delirium of typhus, as *mania phrenitoides* has to the delirium of ſynocha, for it is the diſeaſe not of the ſthenic, but of the aſthenic diatheſis, and is more nearly related to *hyſteria* than to *hypochondriaſis*. This idea is ſuggeſted by Van Swieten, § 1125, for, deſcribing the remote cauſes of this ſpecies of mania, he obſerves, *hæc autem obtinent in hyſtericis dictis mulieribus.*

For the prediſponent cauſe, therefore, we may aſſign debility with morbid irritability.

The occaſional cauſes are,

1. Debilitating diſeaſes, particularly protracted intermittents, chiefly of the *quartan* type, with profuſe evacuations, whether natural or artificial, and whatever tends greatly to debilitate the ſyſtem.

2. Strong

2. Strong mental paſſions, emotions, and exertions.

Sydenham, who was the firſt to diſtinguiſh this ſpecies of mania, deſcribes it as *peculiaris quædam ac ſui generis mania, intermittentes diuturniores*, QUARTANAS PRÆCIPUE, *nonnunquam excipiens:* and Boerhaave, who himſelf learnt from Sydenham this and many other diſtinctions of the laſt importance, repeats the ſame expreſſions, § 1125. They both agree that repeated venæſections and copious evacuations, injudiciouſly preſcribed in quartans, bring on this diſeaſe and cauſe it to return. To what they delivered, Van Swieten adds, *Tales manias aliquoties natas vidi in puerperis, ſi validâ excandeſcerent irâ primis diebus puerperii*; and he might have extended this obſervation not merely to the period of the lochial, but alſo to the time of the menſtrual diſcharge, for in both violent paſſions of the mind occaſion either mania or a fatal *apoplexy*.

3. Whatever induces ſpaſmodic affection.

The proximate cauſe therefore, as it appears to me, is preternatural determination to the brain induced by ſpaſm.

Van Swieten attributes this determination, 1. To the ſpaſmodic conſtriction of the arteries themſelves; *ſpaſmodicæ vaſorum conſtrictiones poſſunt efficere, ut nimia plenitudo fiat in vaſis cerebri*; becauſe they act not ſimply as elaſtic tubes, but have muſcular fibres, by

by whoſe conſtruction their diameters may be readily diminiſhed. § 1010.

2. To ſpaſmodic conſtriction in the abdominal viſcera, ſuch as *hyſterical* women frequently experience. *Si etiam in aliis partibus corporis naſcatur impedimentum ſanguini per vaſa moto; poterit verſus caput majori impetu & copia derivari: ſpaſmodicas tales conſtrictiones in viſceribus abdominalibus* HYSTERICÆ *toties experiuntur, uti notum eſt.* § 1125. His obſervations are accurate; but it is to the immortal Hoffmann that we muſt give the credit of this ineſtimable remark.

In addition to theſe cauſes of determination to the brain, aſſigned by Sauvage and Hoffmann, I ſhall venture to ſuggeſt a third, which I am inclined to think both more common and more powerful than either of the former.

It is ſpaſmodic conſtriction of the diaphragm compreſſing the aorta.

To explain this effect, I muſt call to the recollection of the ſtudent the anatomical ſtructure of the parts in queſtion.

The aorta deſcends from the thorax into the abdomen, between the two tendinous productions of the inferior muſcle of the diaphragm, which are attached to the vertebræ. It is therefore evident that it muſt be ſubject to compreſſion, whenever there is ſtrong ſpaſmodic contraction of theſe tendons, and it is equally clear that ſuch compreſſion muſt

prevent a free deſcent of the blood. The conſequence of this will be a preternatural determination to the brain.

This ſpaſmodic conſtriction of the diaphragm may be occaſioned either by mental paſſions, or by morbid affections of the ſtomach. The conſent between the ſtomach and the diaphragm has been already noticed in my firſt volume, and may be obſerved in hiccough and in the act of vomiting; but to account for this conſent, we need only call to mind the nervous communication between theſe ſympathizing organs.

1. The ſtomach is ſupplied with nerves from the par vagum, many ramifications of which are loſt in the plexus ſolaris and the ſemilunar plexus.

2. The diaphragm derives its two diaphragmatic or phrenic nerves from the corvicales, and receives branches both from the intercoſtal, and more particularly from the par vagum.

Hence ariſes the wonderful conſent between theſe organs, conſtantly maintained by means of the par vagum and the intercoſtal or great ſympathetic nerve united in the *ſolar plexus*, which Fabre denominated *centre des ſenſations*.

That ſtrong action of the diaphragm, whether in vomiting, coughing, or immoderate laughter, the γελως ασβες of Artæus, in the expulſion of the fæces, parturition, or ſtraining to raiſe great weights, cauſes

cauſes a determination of blood to the head, is not only rendered at all times viſible by redneſs of face protruſion of the eyes, and diſtention of the veſſels, but is ſometimes evinced by apoplexy, as noticed by Aretæus, Boerhaave, and Van Swieten. For although theſe effects have been attributed to ſtagnation of venous blood in the right ſide of the heart; this circumſtance alone will not account for a preternatural proportion of arterial blood being either ſent towards the head or accumulating there.

From what I have delivered it will appear that the *phrenitis inanitorum* of Sauvage is preciſely the diſeaſe I have been deſcribing, and the attentive reader will diſcover that the ſame may be affirmed of his *paraphroſyne a pathemate.* His ſubſequent ſpecies *paraphroſyne puerperarum, paraphroſyne calentura, paraphroſyne febricoſa, paraphroſyne critica, et paraphroſyne* HYSTERICA, all throw light upon the diſeaſe in queſtion.

If the ſtudent will look back to the delirium of typhus, which is the *paraphroſyne febrilis* of Sauvage, or if he will conſult my third ſection of the order ſpaſmi; he will be ſatisfied, that what I have been ſtating has ſome claim to his attention.

My ideas of this diſeaſe are confirmed by a very judicious remark of Dr. Ferriar, who in his late publication ſays, *hyſteria* is not unfrequently converted into epilepſy and inſanity by the continued action of its remote cauſes. I have ſeen the diſcriminating

criminating ſymptoms of both diſeaſes ſo intermixed in the paroxyſms, that it was impoſſible to determine which of them predominated. In one caſe of this ſort, a converſion into mania took place, but the change was perhaps decided by the violence of the paſſions; in another inſtance, after a long ſtruggle, hyſteria prevailed. See Medical Hiſtories, p. 9.

From this view of the ſubject our indications of cure may be:

1. *To procure a derivation from the head.*

2. *To diminiſh the preternatural irritability of the ſyſtem.*

3. *To remove morbid ſtimulants.*

4. *To divert the attention from the prevailing idea which has got poſſeſſion of the mind.*

Of this ſpecies of mania our Sydenham remarks, *Illud autem peculiaris quædam et ſui generis mania communem medicandi rationem aſpernatur:* and Boerhaave after Sydenham informs us in his aphoriſms, *Hæc ſpecies ſolis reficientibus, replentibus, cardiacis, roborantibus, diu continuatis, ſanatur. It ſi evacuando tentatur atrophiam, debilitatem, inſuperabilem fatuitatem infert.*

To anſwer the firſt intention therefore, the only practice to be recommended, is the tepid pediluvium, that is, a bath for the feet, heated to about 96° of Fahrenheit's thermometer. M. Pomme, in

this diſeaſe kept his patients in the warm bath from ten to twenty-four hours without intermiſſion.

The ſecond intention may be anſwered by tonics, ſuch as a generous diet, cool air, cordial ſtimulants, bitters with aſtringents, and exerciſe in proportion to the ſtrength. Sydenham depended chiefly on wine and Venice treacle, which laſt he gave three times a day: Boerhaave to theſe added the Peruvian bark, and cordial ſtimulants, as in the ſubſequent preſcriptions.

℞ Cinchon. dr. 2. Winteran. dr. 3. Conſerv. Roriſmarin, un. 1. Syr. Kermes. Pharm. Edin. q. s. M. f. Elect. c. dr. ½. o. 3. h.

Or,

℞ Elect. e Scord. dr. 1. Elæoſacchar. ex Ol. Citri. dr. 2. Enulæ. un. 7. Syr. 5 Rad. aperient. q. s. M. f. Elect. c. dr. ½. o. 3. h.

Or,

℞ Zinzib. condit. un. 3. Cort. Aurant. condit. un. 2. Nucis Moſch. dr. 4. Syr. Artemis. q. s. M. f. Elect. c. dr. ½. o. 3. h.

Or,

℞ Theriac Androm. Pulv. Diateſſaron. Pharm. Ed. aa un. 1. Conſerv. Abſinth. dr. 4. Rad. Angelic. dr. 2. Syr. Caryophyll. Rub. q. s. M. f. Elect. dr. 1. o. 6. h.

℞ Cinchon. Cort. Winteran. Cort. Citrei. Cort. Aurant. Cinnam. aa un. 1. Sumit. Serpill. Thymi,

Thymi, Mari, aa dr. 4. Fl. Stæchad. Arab. Fl. Lavand. Fl. Tanacet aa un. 1. Ligni. Agalloch. L. Saſſafr. aa dr. 6. Vin. Hiſpan. ℔6. M. f. s. A. Vinum medicatum Cardiacum Calidum, Roborans. c. un. 2. o. 6. h.

Theſe preſcriptions are worthy of the great practitioner from whom they came, and perfectly anſwer the intention by giving vigour to the ſyſtem. For the ſame purpoſe the following by way of change may be occaſionally ordered.

℞ Cinchon. Confect. Aromat. aa ſcr. 1. Aq. Cinnam. dr. 12. Sp. Cinnam. Syr. Cort. Aurant. aa dr. 1. M. f. H. o. 8. h. s.

Or, ſhould the bark in ſubſtance diſagree, the ſubſequent may be adopted in its ſtead.

℞ Cinchon. un. 1. Caſcar. dr. 2. Coq. in Aq. font. un. 20. Ad un. 16. Cola.

℞ Decoct. Preſcript. un. 2. Tinct. Cinchon. Hux. Cojparv. Confect. Aromat. gr. x. Aq. Cinnam. dr. 4. Syr. Cort. Aurant. dr. 1. M. f. H. o. 8. h. s.

To theſe may be added from five to ten or fifteen drops of Tinctura Opii, when it ſhall be thought expedient.

To anſwer the third intention, ſhould acrid bile, or viſcid mucus, be collected in the firſt paſſages, theſe muſt be evacuated by emetics. It is moſt aſtoniſhing to ſee the effects produced by the paſſions of the mind, more eſpecially by anger, grief, and fear, in

the whole extent of the alimentary canal. Anger promotes a ſudden and plentiful diſcharge of bile, which ſtimulates the firſt paſſages, and brings on ſpaſmodic conſtriction. Grief and fear relax the mucous glands; and although the latter, in the firſt inſtance, quickens the periſtaltic motion of the bowels, they both terminate in coſtiveneſs. But if the mucous glands are not relaxed, and if the food is well digeſted in the ſtomach; little benefit can be expected from the action of emetics. Should a load of fæces in the bowels prove the cauſe of irritation, theſe muſt be removed by gentle cathartics, ſuch as manna, caſſia, tamarinds, ſoluble tartar, rhubarb and ſenna, by lenitive electuary, or by the ſubſequent compoſition.

℞ Tamarind. un. ½. Fol. Sennæ. dr. 2. Rhei. gr. 10—20. Aq. font. un. 4. Coq. et Colaturæ, un. 3. Diſſolve Mann. et Syr. Roſ. Solut. aa un. 1. M. f. H. m. s.

This was a favourite preſcription of our Sydenham, when the moſt lenitive cathartic was required. But ſhould this fail of its effect; calomel from one grain to three, according to the irritability of the bowels, may be given the preceding night, with twenty grains of aſſafœtida and five drops Ol. Carui. This may be followed in the morning by ſome gentle evacuants.

In a caſe, in which I viſited a patient after Dr. Willis

Willis had left her, he had preſcribed as follows:

℞ Antim. Tart. gr. iij. Kali. Tartariſat. ʒj. Suc. Cicut. ʒiſs. Gum. Ammon. Ammon. ppt. aa. ʒj. Aq. Diſtil. ʒxiij. Sp. Nucis Moſch. Syr. Croci aa ʒj. Terendo. M. f. H. Cap. ʒxiv. Statim et rep. 6ᵃ. horis et con.

That is,

Take tartar emetic three grains; ſoluble tartar one ounce; juice of cicuta a dram and a half; gum ammoniac and ſpirit of ſal ammoniac of each one dram; diſtilled water thirteen ounces; nutmeg water and ſyrup of ſaffron of each one ounce. The doſe fourteen drams every ſix hours.

Here the doſe of ſoluble tartar is about one dram four times a day, and is quickened in its operation by other powerful detergents. The preſcription is certainly a good one, but as it was continued only for three days, there was no opportunity in that caſe to judge of its effects.

Should there be ſymptoms of worms theſe muſt be deſtroyed by anthelmintics, keeping clear however of the more powerful cathartics; and the catamenia, if obſtructed, muſt be reſtored by emmenagogues of the antiſpaſmodic or of the aſtringent orders.

To anſwer the fourth intention, change of ſcene, cheerful ſociety, and agreeable purſuits, are the only remedies. Hence it is that ſome have been cured

in the courſe of a long journey. I ſhall here ſubjoin ſome caſes.

Case I.

A lady of an irritable habit, being alarmed at the piercing and long continued cries of her child, into whoſe fleſh a pin had penetrated, was ſeized with an hyſteric fit. Dr. Thornton being preſent gave her peppermint water, ſpirits, and magneſia, which diſcharged much wind, but the globus hyſtericus continued. Her teeth were cloſed, her jaw was locked, her eyes were fixed and much inflamed, and convulſion of the limbs ſucceeded. She ſnapped at her attendants, ſcratched them with her nails, and tore the pillow-caſe with violence.

When this fit, after continuing for ſix hours, was aggravated by cordial ſtimulants, Dr. Thornton ordered an emetic of ipecacuanha, ſeven grains with one grain of tartariſed antimony. This aggravated the maniacal ſymptoms, and made her violent in the extreme: ſhe ſeized the pillow with her teeth, and the ſpaſm of the œſophagus was diſtreſſingly increaſed: but a repetition of the emetic above mentioned produced the deſired effect, and a whole baſon full of viſcid ſlime came up, when the patient inſtantly recovered the uſe of reaſon, called for her child, and the next day felt herſelf only to a ſlight degree indiſpoſed.

This appears to be the *paraphroſyne a pathemate* of Sauvage, and reſembles the caſe of Charles VI. of France, excepting only its ſpeedy termination by a judicious treatment.

The caſe of M. P. mentioned by Dr. Ferriar, vol. ii. p. 95, ſeems to have been ſimilar to theſe.

At

At leaſt it ſhews ſimilar benefit received by one emetic in a caſe of recent inſanity.

Case II.

An amiable lady, aged 41, of an irritable habit, renouncing air and exerciſe, employed herſelf unremittingly in reading, writing, and converſing on religious ſubjects. To clear her head, when ſhe wiſhed to expreſs her thoughts with energy, ſhe drank a quantity of ſtrong green tea, after which ſhe wrote or talked inceſſantly, but loſt her reſt at night. Her appetite diminiſhed and became depraved. Her ſtrength and ſpirits failed. Her feet and hands were dry and cold as ice, yet ſhe had frequent flu ſhing of face, more eſpecially after eating. She became extremely coſtive, and when ſhe took cathartics, they brought away ſtools like water, yet offenſive and ſmelling like cats urine, with which were evacuated a few ſmall, hardened ſcybala. Even without the aid of medicine ſhe had ſometimes five or ſix motions in a day, each time voiding with difficulty a few of theſe compacted buttons. When ſhe paſſed her urine, the flow was frequently interrupted, yet ſhe had no ſymptoms of the ſtone. The urine was moſtly limpid, and in great quantity. Her reſt was much diſturbed for three days before the appearance of her catamenia, and during that period ſhe was always more than commonly fretful. Her ſpirits being depreſſed, ſhe uſually drank eight glaſſes of ſtrong wine every day, but the exhilarating effect was ſoon exhauſted, and ſhe conſtantly ſunk lower than before.

As the ſummer advanced her principal article of diet was green pea ſoup with fried bread; and in the autumn ſhe eat peaches in great abundance; her courſes gradually diminiſhed, and when the time of their appearance was at hand, ſhe became mentally deranged; yet in about ten

days after they were paſſed, ſhe was perfectly reaſonable again. The laſt time of their appearance they continued only for one day and ſhe was rational: but putting her feet in hot water for a quarter of an hour, ſhe had fluſhing of face and became outrageous: her courſes ſtopped, and have not ſince returned.

The ſubject of her raving regards her ſpiritual eſtate, concerning which ſhe ſeems to entertain unfavourable apprehenſions. Yet her attention is readily recalled for ſhort intervals to rational diſcourſe, in which ſhe diſcovers a perfect recollection and remarkable vivacity of imagination. Her hearing, taſte, and ſmell, are uncommonly acute. Her pulſe is ſmall and frequent, her tongue is clean, and her appetite now is ravenous. She has had emetics, cathartics, and a variety of antiſpaſmodics, and has been confined chiefly to her room and to her bed.

Opium, which ſhe has taken for a long time in conſiderable quantities, never fails to bring on fluſhing of face, to leſſen her appetite, to increaſe her coſtiveneſs, to give a wildneſs to her eyes, to make her more violent, and to deprive her totally of reſt, till its operation as a ſtimulant is over, after which ſleep, but not refreſhing ſleep, ſucceeds, followed by languor in the extreme. For a few days ſhe has omitted opium, and been confined to the following compoſition.

℞ Caſtor, gr. 15. Gum. Ammon. gr. 12. Miſt. Camph. un. 1½. Sp. Ammon. comp. gtt. 30. M. f. H. om. ſexta horâ repet.

Since ſhe has taken this her reſt has been more natural.

The tepid pediluvium, with the heat at 97°, brings on ſtrong fluſhing of her face, and makes her furious.

Cathartics, ſuch as jalap, ſcammony, and colycynth, act as

hydragogues, but do not clear away the fæces, and magneſia gripes her much.

Emetics remain long inactive in her ſtomach, and then come up unchanged, with ſtrong convulſions, followed by numerous and copious ſtools, conſiſting of fæces with much viſcid mucus.

Case III.

A man aged 50, of an irritable temper, full of blood, and a hard drinker from his youth, having been for ſixteen years accuſtomed to loſe blood twice a year, omitted this practice, yet continued to drink hard. In theſe circumſtances he was provoked to anger, and to ſuch a degree, that he was inſtantly ſeized with violent vomiting and purging, and loſt his appetite for food. Soon after this he became reſtleſs and watchful, and, by his countenance and geſtures, ſhewed evident tokens of inſanity. Sometimes he was violent, at other times he was gloomy and fled from ſociety; yet frequently his ſorrow was ſuddenly turned to joy, when being more than commonly affable, his raving was inceſſant. Theſe fits of inſanity were never of long continuance, yet returned on the ſlighteſt mental diſturbance, and were readily induced by the moſt trifling error in his diet.

Hoffmann, being conſulted, was of opinion that the determination to the head was occaſioned by ſpaſmodic affection of the inteſtines induced by effuſion of bile, and this effect he attributed to mental perturbation. He therefore ordered only antiſpaſmodics and tonics, with a diet conſiſting of ſuch articles as are eaſy of digeſtion, which, with the aſſiſtance of the tepid pediluvium, in a few months perfected a cure.

Case

Case IV.

A lady aged 30, of the ſanguine melancholic temperament, having met with poignant vexation at the early period of her pregnancy, became oppreſſed with grief. To relieve this diſtreſs ſhe drank brandy both freely and frequently, which ſoon produced a furious *mania*. This during the firſt months of geſtation was violent in the extreme, for without the leaſt provocation ſhe ſpit at every one that paſſed. She tore her clothes, and could find no reſt in any place. But when ſhe had completed half the time of pregnancy, her mental derangement began to diminiſh gradually, and continued diminiſhing to the time of her delivery, when ſhe was in perfect health.

From this time, however, ſhe had no return of the menſtrual diſcharge, in conſequence of which retention ſhe relapſed into her inſanity.

Hoffmann, being conſulted, ordered the tepid pediluvium every night before ſhe went to bed, and gave her, about the times when the catemenia ſhould have appeared, a doſe of ſome balſamic pills every night, and the ſubſequent morning a dram of his aperitive ſalts, compoſed of taſtaceous powder, nitre, and vitriolated tartar, to be waſhed down with his *antiſpaſmodic* infuſion of lime-tree, roſemary, and primroſe flowers, with orange peel. By theſe means he ſoon perfected a cure.

Case V.

A woman of a choleric diſpoſition, aged 42, being ſeized with a violent paroxyſm of anger, whilſt her courſes were upon her, became ſuddenly inſane. This fit of mania continued for ſix weeks, then left her, but returned every

ſix or ſeven months. On its approach, which was always at a menſtrual period, ſhe found a pain in her breaſt and right hypochondrium, which drew the head and teeth into conſent. She ſlept ill, and with nauſea; ſhe frequently threw up in the day a watery and frothy liquid of a yellow colour. As ſoon as her courſes began to flow, the maniacal ſymptoms made their appearance. Sometimes ſhe began with ſinging, dancing, and laughing immoderately, or raved with an aſtoniſhing volubility of tongue: then ſtood ſilent and ſad, looking for a great length of time penſive on the ground, at the ſame time ſullenly refuſing every kind of ſuſtenance. At other times ſhe complained of thirſt, and became ſo furious as to require ſtrict coercion. Her ſleep, when ſhe could ſleep, was diſturbed by frightful dreams. She was ſo coſtive that ſhe paſſed only, and with difficulty, hardened ſcybala once in three or four days. The pulſations of the artery were ſtrong and rapid in the extreme.

After ſome days of interval, the fits became ſtronger in the evenings, and gave notice of their approach by coldneſs of the extremities, by univerſal tenſive pains, and by ſublivid ſpots on the arms and legs. Theſe were followed by languor and wearineſs of all the joints, but the underſtanding and memory perfectly returned during the intermiſſions.

After her phyſicians had tried in vain what could be done by emetics, by cathartics, and by veneſection, Hoffmann recommended air and exerciſe, with light food in moderation; barley water with lemon-peel for her common beverage, and every morning balm-tea with flowers of the lime tree (*Tilia Europæa*), and lemon-peel, to drink.

He ordered tepid bathing every night at the approach of the monthly periods, with his balſamic pills; and, both during the paroxyſms, and at the changes of the moon, he gave

gave the following antiſpaſmodic compoſition twice a day, either alone or with what he calls his antiſpaſmodic powder.

℞ Liquor. Anodyn. dr. 2. Caſtor. dr. 1. Spirit. Sal. Ammon. dr. ½. M. c. gtt. 40. Quam in paroxyſmo pariter ac extra ipſum ſub lunæ mutationibus.

His antiſpamodic powder contained nitre, cinnabar, burnt hartſhorn, amber, and a certain powder, the compoſition of which he has not explained, called by him *pulvis marchionis*.

By the uſe of theſe medicines the paroxyſms became leſs frequent and more moderate, and he had no doubt of perfecting a cure.

The lime-tree flowers, I obſerve, are a favourite remedy with him in ſpaſmodic affections, and although now neglected, he aſſures us, that by theſe alone he cured a chronic epilepſy. His pulvis marchionis ſeems with him to be in equal eſtimation.

Case VI.

Dr. Ferriar in his medical hiſtories gives a very intereſting caſe, which, as it appears to me, comes under *mania hyſterica*. A lady of a domeſtic, induſtrious diſpoſition, and of a full habit, fell by degrees into a maniacal ſtate, which diſcovered itſelf chiefly by uncommon levity in her converſation and behaviour. She could recollect, but never wholly reſtrain herſelf; was noiſy, familiar, and conſtantly diſpoſed to run and jump about. Her perceptions were quick, but not falſe. Small doſes of mercury, uſually half a grain, operated as ſtrong cathartics. Theſe were continued for three

weeks,

weeks, when a ſpontaneous diarrhœa ſupervened. She had then two grains of opium every night; the diarrhœa gradually ceaſed, and ſhe remained free from every maniacal ſymptom.

SECTION VI.

OF THE MANIA MENTALIS OF DR. CULLEN.

If any ſpecies of mania exiſted in the mind, without affecting the general ſyſtem of the body, and were to be cured by moral arguments alone; this might with propriety be named *mania mentalis*. But as no ſuch diſeaſe has been diſcovered by noſologiſts, this diſtinction is inadmiſſible.

Certain however it is, that vehement and ungratified deſires, the indulgence of evil tempers, ſuch as envy, pride, ſelf-will, and malice, with ſilent and wilful emotions of the mind by anger or by joy, and protracted grief, not only occaſion mental derangement, but contribute to ſupport it through its ſeveral ſtages, till it terminates in death. Theſe therefore in every ſpecies of inſanity muſt be corrected or reſtrained, and it remains only to conſider by what means.

1. In caſes of debility we muſt invigorate the ſyſtem, and remove, if poſſible, all the occaſional cauſes of irritation, whether mental or material.

We

We know that people of a relaxed and irritable fibre, are the firſt to be diſtreſſed by their appetites and paſſions. Weakly children are commonly fretful, and all people in typhus are impatient, if they meet with either contradiction or delay; whilſt the healthy and the hardy ruſtic, working perpetually in the open air, has ſo little irritability, that it is ſometimes difficult to ſay which are moſt blunt, his mental or his bodily ſenſations. He is patient of hunger, of cold, of labour, and if he has met with any loſs or contradiction, it makes but a faint impreſſion and is ſoon forgotten.

In all caſes, therefore, of morbid irritability, the ligitimate offspring of debility, we muſt have recourſe to tonics and aſtringents: we muſt invigorate the ſyſtem by a generous diet, by freſh air, exerciſe, and agreeable ſociety, and, if need be, we muſt call in the aid of bitters, bark and ſteel, or, in the language of modern chymiſtry, we muſt ſupply the lungs with *oxygen*, and the ſtomach with both *hydrogen* and *carbon*, which laſt, as I apprehend, is to be derived abundantly from mineral waters and from the Peruvian bark.

But whilſt we are engaged in giving ſtrength to the general habit, we muſt not forget to remove, as far as poſſible, the occaſional cauſes of irritation, among which may be reckoned indigeſted ſordes, acrid bile, worms, and viſcid mucus, accumulated in the firſt paſſages, for all theſe, as we may frequently obſerve, render children and weakly people peeviſh,

peeviſh, fretful, and diſcontented. The ſame effect is produced by that anxiety which is uſually felt, when nature is preparing for ſome effort to relieve herſelf, as in cutaneous erruptions and in hæmorrhage. Mental anxiety likewiſe muſt be, if poſſible, relieved, and we muſt be careful not to recall thoſe ideas which excite diſtreſs.

2. In lucid intervals, and the moments of calmneſs and tranquillity, we may try the force of moral arguments, for as Sauvage on this ſubject has very judiciouſly obſerved, at ſuch ſeaſons,

Sunt verba et voces quibus hunc depellere morbum poſſit qui ſapiens eſt.

Reſignation to the will of heaven, ariſing from confidence in the wiſdom, power, and goodneſs, of the Supreme, with a firm perſuaſion that all events are ſubject to his providence, is the beſt preſervative, and in lucid intervals the moſt powerful reſtorative, in all caſes of inſanity, which depend on mental irritation.

3. Strict coercion, when the patient is inclined to violence, is required, not merely to prevent miſchief, but as a remedy; becauſe the deſire to hurt, like every other paſſion, is ſtrengthened by indulgence. The moſt effectual coercion is by the ſtrait waiſtcoat, for when the miſerable ſufferer knows that his efforts will be vain, he will be the leſs inclined to make them.

4. The

4. The moſt powerful reſtraint is fear.

It may without due conſideration appear abſurd to ſuppoſe, that madmen are under the influence of hope and fear; but this ſuppoſition is well eſtabliſhed, as perfectly agreeable to facts.

The ſubject is curious, and merits ſome diſcuſſion.

LINNÆUS, in tracing the analogy which reigns through nature, has conducted us from ſtones to vegetables, and from theſe to animals. The *analogy* between animals and vegetables is ſtrikingly exact, and will, I doubt not, be accurately traced by my ingenious and moſt laborious friend Dr. THORNTON in his Botanic work, a work which, from its magnificence, will do credit to himſelf, and be an honour to the age.

The *ſame analogy* ſubſiſts between the ſeveral claſſes of animals themſelves, from the worm to inſects, fiſh, the amphibia, birds, bats, monkies, man. To trace this progreſs belongs to the comparative anatomiſt, and if well executed, muſt be highly intereſting. This ſubject however, for the preſent, I muſt leave, to be reſumed hereafter, ſhould I live to finiſh other works in which I am engaged. It is ſufficient for our purpoſe to remark, that animals poſſeſs the vegetable nature, and that man, the moſt perfect of the animals, has completely all the natural properties, with the inſtinct of the brutes.

All animals with locomotive power poſſeſs the faculties of underſtanding, memory, and appetence,

tence, but to diſtinguiſh the noble from the ignoble, it may be obſerved that in brutes motion and volition are inſtinctive, whilſt man, who has the moral ſenſe, and ſuperior intellectual powers, governs or ſhould govern all his actions and volitions by the uſe of reaſon. But as every faculty is ſtrengthened by exerciſe, and for want of exertion may be gradually weakened till it is wholly loſt; hence it is that by inveterate habit, either reaſon eſtabliſhes an abſolute dominion over inſtinct, or inſtinct over reaſon, rendering a perſon either perfect as a man, or perfectly a brute.

Beſides, when any faculty lies dormant, the reſt, by the accumulation of vital energy, gain ſtrength: and when on the other hand any faculty is exerted with intenſity, it is commonly at the expence of all the reſt.

If, then, a perſon has acquired the habit of being moved, without deliberation or the control of reaſon, by his appetites and volitions; if theſe, by being gratified, have gained the aſcendancy and are for every preſent to his mind; and if, in ſuch circumſtances, *anger* is excited by real or ſuppoſed oppoſition to his vehement deſires; the man will not conſider what is juſt, honourable, or ultimately ſafe, but without heſitation, preciſely like the brutes, will ruſh forward to revenge ſome inſult, to ſeize the good which he deſires, or to avert the evil which he dreads.

Every thing in theſe unfortunate ſufferers de-

monſtrates that they are degraded to the condition of the brutes, for in both we obſerve the ſame ferocious ſtrength, the ſame diſregard for cleanlineſs, the ſame want of decency and of ſhame, and the ſame impatience of reſtraint, till they are perfectly ſubdued.

It is not conſciouſneſs, which is wanting in maniacs, for after their recovery they recollect what has paſſed; it is not the defect of underſtanding, which is to be lamented in the inſane, for their intellects are often brightened by diſeaſe; it is not inability to feel the influence of hope and fear, which leaves them at the mercy of their paſſions, but it is their impetuoſity of temper, it is the vehemence of their volitions which hurries them away. Yet whilſt in this reſpect they have a ſtriking reſemblance to the brutes, it is happy that, like the brutes, they are extremely ſuſceptible of fear.

Of this affection then we may avail ourſelves not only to ſecure obedience, but to reſtrain their impetuoſity, and to ſtifle the paſſion of anger in its birth, till the habit of patient ſubmiſſion is acquired, and by degrees the empire of reaſon is reſtored.

Van Swieten informs us that in Holland there was a celebrated practitioner, who frequently cured maniacs by rewards and puniſhments. When they were furious he had them dragged along by chains like wild beaſts, and either followed them with ſtripes, or inceſſantly daſhed cold water in their faces; and when that was inſufficient, he tamed them by hunger and by thirſt; but when they were

ſubdued,

ſubdued, when they became calm and ſubmiſſive to his orders, he treated them with kindneſs, and granted them every ſuitable indulgence.

When however the authority of the phyſician is eſtabliſhed, ſuch ſeverities are not only needleſs and cruel, but extremely detrimental. My friend Dr. Nankivell, whoſe abundant ſucceſs muſt vindicate his practice, finds univerſally, that ſtern looks and an authoritative tone of voice are ſufficient for the purpoſe. Should this fail, hunger will tame the moſt ferocious animals; and in aid of this, darkneſs and ſolitude may be reſorted to without reproach. At all events, every ray of hope, that they may eſcape with impunity after having tranſgreſſed, muſt be precluded. For this reaſon they muſt be committed to the care of ſtrangers, that they may never be encouraged to indulge their evil tempers and volitions, under the expectation of meeting with falſe tenderneſs and compaſſion from their friends.

As a part of their puniſhment, when they have deſerved it by malicious violence and outrage, they may be ſubjected to ſome hard labour, which if ſufficiently prolonged, will not only ſubdue their ferocious temper, but by fatigue will induce the moſt ſalutary ſleep. And when this bodily exertion is ſuch as to require, in any degree, the attention of the mind, its good effects will be more certainly inſured.

Genus LXI. *Amentia.*

THIS character is, imbecility of intellect, by which the relations of things are either not perceived or not recollected.

1. This frequently depends on ſome organic affection of the brain beyond the reach of medicine. Such is the amentia *congenita* of Dr. Cullen, and ſuch is *amentia ſenilis*, which is the attendant of decrepitude.

2. It is the legitimate offspring of mania; for this, unleſs phrenitis ſupervenes and terminates in death, never fails, after long continuance, to produce *fatuity*. It ſometimes originates in melancholia, and is more eſpecially derived from theſe diſeaſes, when they have been injudiciouſly treated by profuſe evacuations, whether by venæſection or cathartics. Sydenham particularly complains of this in his obſervations on the ſpecies of mania, which ſucceeds to ill treated quartans. If, ſays he, we attack this diſeaſe by repeated venæſection and cathartics, we may indeed ſubdue the ferocity of mania, but we ſhall certainly induce fatuity, and that without a poſſibility of cure.

3. *Amentia* very frequently remains as the conſequence of fevers.

4. Sometimes

4. Sometimes it derives its origin from intemperance. Hence we have in Sauvage amentia à temulentiâ, amentia à venere, et amentia febrifuga.

5. It has likewiſe been traced up to ſomnolence too much indulged.

6. But the moſt common ſource from which it ſprings is *epilepſy*, being a ſpecies of fatuity unnoticed either by Cullen or Sauvage.

The only hope of relief in this humiliating diſeaſe muſt be derived from a generous diet, cordial ſtimulants, air, exerciſe, and the moſt powerful tonics. Indeed ſeveral inſtances have been recorded of patients, who, after having been reduced to idiotiſm, have by theſe means perfectly recovered all their mental powers.

Mr. BELL of Edinburgh particularly mentions one, who having loſt both memory and intellect by epilepſy, in four months recovered both by flowers of zink, of which he took from one grain morning and evening to twelve grains three times a day.

Claſs III. CACHEXIÆ.

CACHEXIES.

THE diſtinctive character of this claſs is,

A depraved habit of body, without PYREXIA, and independent of NEUROSES, as original diſeaſes.

The orders of this claſs are three:

I. MARCORES.
II. INTUMESCENTIÆ.
III. IMPETIGINES.

Of which the pathognomic ſymptoms follow:

I. MARCORES, univerſal emaciation.
II. INTUMESCENTIÆ, general ſwellings.
III. IMPETIGINES, deformity of the external ſurface, by tumours, eruptions, and other preternatural affections of the ſkin.

INTRODUCTION.

WE have conſidered the diſeaſes affecting principally the *heart* and the ARTERIAL SYSTEM, comprehended in the claſs PYREXIÆ.

We

We have dwelt largely on the diſorders of the *brain* and of the NERVOUS SYSTEM, included in our claſs NEUROSES.

I now proceed to the diſcuſſion of thoſe diſeaſes, which more immediately ariſe from morbid action of the *ſtomach*, and of the LYMPHATIC SYSTEM. Theſe will occupy our claſs CACHEXIÆ.

But whilſt we thus ſurvey detached portions of the animal economy, and examine the diſorders to which each part is principally ſubject, it muſt be confeſſed, that nature has not left them independent of each other. Nay, ſo far is ſhe from having eſtabliſhed an empire within an empire, that with moſt aſtoniſhing contrivance and unity of deſign, ſhe has made each power ſubordinate to the reſt, and from hence it is, that if one is principally affected, the others ſympathize and are drawn into action by conſent.

This idea is beautifully expreſſed by Hippocrates, when he compares the body to a circle in which we can find neither the beginning nor the end, and then remarks, that the ſame obſervation will hold good reſpecting its diſeaſes.

Yet, notwithſtanding the efforts of nature to relieve herſelf are thus combined, they require, for the ſake of diſtinctneſs, to be ſeparately viewed; and, to cure diſeaſes, the attention muſt be turned towards the ſyſtem chiefly affected, whether the *arterial*, the *nervous*, or the *lymphatic*.

SECTION I.

OF THE ABSORBENTS AND THEIR USE.

THE abſorbents, ſtrictly ſpeaking, are either lacteal or lymphatic; but, with greater latitude, we might conſider all the ſecretory and excretory veſſels as belonging to the ſame ſyſtem, becauſe they poſſeſs the ſame vital action and are governed by the ſame laws.

The *lacteals*, firſt diſcovered by Aſellius, an Italian, A. D. 1622, are innumerable pellucid tubes, ariſing from all the inteſtines, chiefly from the villi of the ſmaller, and inviſible, unleſs when diſtended with chyle, that is with the milky fluid, which they ſelect by animal attraction from the digeſted aliment. Their mouths, which are numerous in every villus, are ſo ſmall as not to be diſcerned unleſs by the microſcope, and at their commencement, after having left their villi, they are capillary; but as they unite in their progreſs towards the meſenteric glands, into which, by numerous ramifications, they empty their contents, they become larger. After their departure from thoſe glands, which is by ſeveral ramifications, they diminiſh in number and increaſe in bulk, till they terminate in the receptacle, from whence the chyle aſcends through the thoracic duct, and paſſing the ſemilunar valves, is diſcharged into the left ſubclavian vein.

Theſe

Theſe ſerve the double purpoſe of lacteals and lymphatics, for they abſorb not only chyle, but the lymph of capillary arteries and aqueous fluids from the inteſtines.

The *lymphatics*, for the knowledge of which we are indebted to RUDBECK, BARTHOLIN, HUNTER, HEWSON, MONRO, and CRUIKSHANK, are ſmall pellucid tubes, furniſhed, like the lacteals and thoracic duct, with valves. They open their mouths into the cavities and cells, and upon all ſurfaces, as well external as internal, of the body, to collect the lymph poured forth by the excretory veſſels, to imbibe it from arteries and veins, and to take in both oxygen and water from the ſurrounding atmoſphere, which they convey to the receptacle of chyle and to the thoracic duct. In their progreſs they diſcharge their contents into lymphatic glands, and in their whole extent they frequently inoſculate, ſo as to keep up the communication without any hazard of interruption.

Nothing in nature can be more worthy of admiration than the vital action of the abſorbents; and it is curious to obſerve, that their activity continues unimpaired whilſt ſenſation and the animal functions are perfectly ſuſpended. This will be evident if we conſider, that during ſleep the bronchial mucus is much thickened, and that both the urine and the fæces ſhew the continued progreſs of abſorption.

In our wonderful machine, to prevent friction

and adheſions, it is required that vapour ſhould be interpoſed between contiguous parts, more eſpecially if either of them is deſigned for motion. This the excretories provide, but as it muſt be frequently renewed, abſorbents are inceſſantly at work, to convey it back into the maſs of circulating fluids. Dr. MUSGRAVE injected 24 ounces of water into the thorax of a dog, and in five days the whole was taken up by the abſorbents, for the breathing became as free as it had been before this water was introduced into the cheſt.

In caſe of dropſy, nature, by means of the abſorbent ſyſtem, makes wonderful efforts to relieve herſelf.

JOHN HUNTER relates the caſe of a lady with ſwelled legs, who made little or no urine, and was ſo weak that ſhe could ſcarcely articulate. She dozed inceſſantly, and had no deſire for food. Her pulſe was hardly to be felt, her feet and all her extremities were cold, yet within thirty-ſix hours of her death, the whole water in her legs and thighs was abſorbed, her urine was increaſed, and about ten hours before ſhe died her legs and thighs were as ſmall as ever. HOFFMANN, in confirmation of what is ſaid by Aretæus, aſſures us, that he has ſeen many perfectly cured by a ſpontaneous and long continued diarrhœa. But what is moſt ſurpriſing is, a caſe recorded by Fernelius, Pathol. lib. 6. in which aſcites was relieved at the approach of the menſtrual period by a profuſe diſcharge

charge of water, which continued for two days; and when, in the interval of menſtruation, the ſerous fluid had again collected, it was the next month entirely diſcharged by the uterus.

Some kind of veſſels, as I have ſtated, are employed to take up the roſcid lymph from the ventricles of the brain; but the office aſſigned to the common cellular abſorbents is twofold, for they not only imbibe the aqueous fluid from the reticular part of the cellular membrane, but, when it is needful, they abſorb the animal oil from the little bags in which it is depoſited, and convey it wherever it is wanted for the purpoſes of life.

When there is any extravaſation either of lymph, of ſerum, or of blood, they remove it; and when extraneous matter gets into the ſyſtem, if this proves injurious, they quickly go to work; or if any part is either dead or uſeleſs, it proves a ſufficient ſtimulus to excite their action.

1. In caſes of gangrene, both ſloughing and exfoliation are produced by the abſorbents, and thus a ſeparation is made between the living and the dead.

2. When whole parts are to be removed, as uſeleſs, without producing ſolution of continuity in the ſurrounding parts; this can be accompliſhed only by the action of the abſorbents. It is thus the thymus gland, the ductus arterioſus, the membrana pupillaris, are obliterated, and thus alſo the fangs

fangs of diſeaſed teeth, with their ſockets, are quietly deſtroyed. It is by this proceſs that aged women loſe their breaſts, when theſe are no longer needful. When the cataract has been extracted, the abſorbents take up the capſule, and frequently, more eſpecially after couching, they carry off the cataract itſelf. The diſeaſed teſticle is removed by them, and ſometimes in caſes of necroſis they devour the bone itſelf. It is by this proceſs that ſchirrous tumours are removed.

3. Du Hamel has demonſtrated by his experiments, that the earthly parts of bones, on which they depend for ſolidity and ſtrength, are unremittingly renewed, whilſt the abſorbents carry off, and exhalant arteries as conſtantly depoſit, calcareous matter. This diſcovery he made by feeding animals alternately with common food, and with this ſtrongly tinged by *rubia tinctorum*; in conſequence of which their bones were variegated red and white. But when he had ceaſed to give the madder for ſix weeks this redneſs vaniſhed.

4. When either extraneous bodies or dead parts, which cannot be abſorbed, cauſe irritation in the ſyſtem, the abſorbents deſtroy the intermediate living parts between the offending matter and the neareſt external ſurface of the body. It is by this proceſs that nature frequently relieves herſelf in caſes of necroſis and of extra uterine conceptions, as I have ſtated in my former volume, when treating of theſe

theſe efforts. And it is thus that pus, when produced internally, exfoliated bones, and all extraneous matters, are diſcharged. But ſometimes it happens, that whilſt the ulcerative proceſs is deſtroying the inſide of a bone, the offifying proceſs makes addition to its outſide, and the bone increaſes to a prodigious ſize; but in the end, the ulceration on the inſide gets the better, and the matter makes its eſcape. Whenever incyſted tumours are formed in the cellular membrane, the whole ſubſtance between them and the ſkin is in proceſs of time taken up by the abſorbents, and then inflammation commences to produce a quicker abſorption, which borders often upon ulceration. It is thus that the tumour is expoſed. John Hunter mentions a caſe, which came under his inſpection, in which a tumour, formed upon the brain, excited, to ſuch a degree, the action of the abſorbents, that without ulceration they carried off the oppoſing portions of the dura mater, of the ſcull, and of the ſcalp.

5. When the exhalants are at work in floating off offending matters from the ſyſtem, as in *diarrhœa*, the abſorbents become active by conſent, and ſhould it ever be proved that they invert their motion, as it has been ingeniouſly, but I fear not juſtly, ſuppoſed in *diabetes*, it muſt be ſtill with the ſame intention of aſſiſting to get rid of ſomething highly ſtimulant.

6. When

6. When there is offending matter in the ſyſtem, which cannot be expelled by the uſual outlets, the abſorbents convey it back into the maſs of circulating fluids to be thrown out by the emunctories. Thus it is evidently in jaundice, for the bile being prevented from paſſing by the common duct into the inteſtines, is taken up by the abſorbents and ſecreted by the kidnies. And when mania and melancholia are relieved by cuticular eruptions, I am inclined to think, that we are indebted to the abſorbents; for upon all occaſions they are ready to aſſiſt nature in her efforts to relieve herſelf. JOHN HUNTER mentions a young man, who had a large bubo in the bottom of his belly, which having ſuppurated and being on the point of breaking, was ſuddenly abſorbed. While this proceſs was going on, he obſerved his urine wheyiſh and thick, as it was coming from him; but this went off entirely when the bubo had ſubſided.

SECTION II.

OF MORBID ACTION IN THE ABSORBENTS.

SINCE the abſorbents act, not by capillary attraction, but with vital energy, which is liable to increaſe and diminution; it is evident that their activity may be either deficient or exceſſive. But

whatever produces either direct or indirect debility leſſens the action of the abſorbents, becauſe the vital energy is injured equally by both.

I. *Direct debility* is induced, *A.* By deficiency of wholeſome nutriment, when it fails either in quantity or quality. This we obſerve among people who live chiefly on the legumina, peas and beans, or on other unfermented vegetables, with dried, ſmoked, and ſalted fleſh, as in Holland; on cucumbers, melons, pompions, and other vapid fruits, as in the watered provinces of Spain; or on bread, water, tea, as in ſome parts of England. *B.* By deficiency of exerciſe, more eſpecially when the indolent and inactive ſpend moſt of their time in ſleep, as already ſufficiently explained. *C.* By ſudden and profuſe evacuations. *D.* By impure air with exceſs of humidity, as I have remarked more particularly in the Aſturians on the northern coaſt of Spain. *E.* By ſuch poiſons as are directly ſedative, among which I am inclined to reckon bile and the menſtrual blood retained.

II. *Indirect debility* is induced by excitement either violent or long continued, and therefore by ſuch poiſons as are indirectly ſedative, that is, whoſe firſt operation is ſtimulant. We have ſeen, by the experiments of the reverend Dr. *Hales* on vegetables, that their vital energy conſtantly accumulated during the night, and is to a certain degree

gree exhauſted by the ſtimulus of light and heat before the middle of the day. And we obſerve, not here particularly to mention heat, that *wine, ſpices, ſpirits,* have preciſely the ſame effect on the abſorbents as may be ſeen in gluttons, and in drunkards whoſe ſpleen, pancreas, and liver, are frequently diſcovered to be ſchirrous.

The conſequence of defective action in the abſorbents muſt be diſeaſe, ſuch as obeſity, indolent tumours, aqueous accumulation, and herpetic eruptions, as will be explained when we proceed to the genera included in this claſs.

Exceſſive action of the abſorbents produces atrophy, and may ariſe from either general excitement, as in acute fevers, or partial ſtimulants, as we ſhall ſee in the local diſeaſes. The ſtimuli may be irritating ſubſtances, ſuch as tears, paſſing conſtantly over the cheeks; or *preſſure,* whether by external objects, by indolent tumours, by pus, or by aneuriſms, all which cauſe the lymphatics to abſorb, not only membranes and muſcular fibres, but the bones. Thus in caſe of a large aneuriſm of the aorta preſſing againſt the back-bone, the artery is firſt abſorbed where it comes in contact with the bone, and continues to waſte till the whole is taken up, after which the bone itſelf is ſoon conſumed; but as the ſurrounding parts unite by adheſive inflammation, a cavity of ſome ſtrength for the circulating blood is always kept entire, and no extravaſation can take place, nor can the parts readily give way.

way. Thus alſo, when in palpitations of the heart repeated preſſure is made upon the ribs, they likewiſe are abſorbed. We muſt ſuppoſe not only exceſſive, but miſtaken action of the abſorbents, when from external inflammation in the eye, they take up both the cryſtalline and the vitreous humours, leaving only a bag of water. When this happens to cataracts produced by contuſion, and therefore by inflammation, we muſt attribute it, not to morbid action, but to the well directed efforts of nature to relieve herſelf.

It is *exceſſive* action of the abſorbents, or perhaps rather deficient action of the exhalants, that produces *mollities oſſium*, in which the bones being deprived of all their calcareous earth by the abſorbents, and not receiving a freſh ſupply from the exhalant arteries, become ſoft and pliable.

One ſpecies of morbid action in the abſorbents is not eaſily reconciled with the general laws of the animal economy, but the effect is too readily diſcovered, which is when they convey poiſons into the ſyſtem, ſuch as the variolous, ſyphilitic, cancerous, canine, and others. Nor can we underſtand for what reaſon they tranſlate matter from cancers and ſcrophulous tumours to diſtant, and ſometimes to more noble parts, than thoſe which ſuffer. This however, like many ſpaſmodic affections, ſeems to be merely an effort of impatience, whilſt the ordinary efforts appear to follow the moſt calm de-

liberation, and to be directed always by the beſt intention.

SECTION I.

OF THE GENERAL INDICATIONS OF CURE IN MORBID ACTION OF THE ABSORBENTS.

Theſe muſt be derived from a conſideration of the cauſes which produce morbid action, whether it be deficient or exceſſive.

In caſes of defective action of the abſorbents, the firſt attention muſt be paid to *diet*, which ſhould be mild, yet generous, conſiſting of ſuch articles as are moſt eaſy of digeſtion, with a moderate quantity of ſpice and wine. Further to aſſiſt the digeſtive powers of the ſtomach and the general action of the abſorbent ſyſtem, recourſe muſt be had to air and exerciſe. It is BOERHAAVE who has left us this direction.

Tum ut optime digeri queant, condimentis, potu vinoſo, exercitio, aire, procurandum, § 1176.

By experience, all medical practitioners have been convinced, that health and vigour depend upon the *air* we breathe: but no one, till Dr. BEDDOES wrote upon the ſubject, was ever able to explain what the air contributed towards heat and life. They had obſerved, that the blood acquires a florid

rid colour by paſſing through the lungs, preciſely as when venal blood is expoſed to the open air. They had remarked that the blood of thoſe people was moſt florid who uſed moſt exerciſe; and that even the blood of horſes after a long journey was more florid, than when they had been confined without exerciſe in ſtables. They ſaw clearly that the blood of a cachectic woman is watery and of an obſcure red: but that by increaſing the blood's motion with frictions, exerciſe, and medicines, it recovers its bright colour. This change they attributed to its paſſage through the lungs, where, according to GALEN *and the ancients, it received ſome ſpirit from the air imparting vital energy to the arterial blood.* BOERHAAVE, from whoſe inſtitutes I have derived theſe quotations, alſo aſſerts that the lungs receive *ſomething* from the *air*, the nature of which he confeſſes himſelf unable to diſcover; but, in order to accoun t for the red blood of fiſh, and the redneſs of the punctum ſaliens in an egg, he obſerves, that the gills of fiſh ſupply the office of lungs, and that air penetrates the egg to ſupport the life and growth of the included chick, § 200—202.

It is at preſent univerſally underſtood, that vital energy is derived from the *oxygen* of *atmoſpheric air*: and, from the obſervations I have had frequently an opportunity of making on the practice of my friend Dr. THORNTON, I am inclined to think, that *oxygenated air* quickens the action of the abſorb-

ents: but of this medical practitioners muſt judge after a careful examination of caſes ſubmitted to their view.

Baron VAN SWIETEN in his comment on the aphoriſm of his maſter BOERHAAVE, wherein *air* is recommended, has remarked, that priſoners excluded from the air, and patients long confined to hoſpitals, become cachectic, that in ſuch ſituations it is very difficult to cure them, and that from hence we may underſtand, why atrophy attends affections of the lungs, even when little is diſcharged by ſpitting, or loſt by ſenſible evacuations. § 1174, § 1176.

Exerciſe increaſes reſpiration and promotes the oxygenation of the blood; and by this it gives vigour to the ſyſtem, and excites the action of the abſorbents. I have already ſpoken upon this ſubject; but, as patients pay too little attention to this moſt important part of regimen, I ſhall enlarge upon it.

It is the circulation of the blood which diſtributes vital energy to every part, for in ſyncope, and even in death, when it is a conſequence of ſuffocation, all the vital organs remain perfect and entire; but for want of diſtribution of vital energy by the circulation of blood, neither the heart, the lungs, the ſtomach, nor the brain, can perform their office; there is neither ſecretion nor excretion; and all action, both vital and voluntary, ceaſes.

In thoſe cachectic diſeaſes, in which the circulation of the blood is languid, in vain will you pour in nutriment, unleſs at the ſame time by air,

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by exercise, and proper medicines, you promote the circulation, and consequently the secretion, with the vital energy of the absorbents.

Muscular motion, by compressing the veins, sends the blood with increasing vigour to the heart, which strongly stimulates that organ; the respiration is much quickened, the blood becomes highly *oxygenated* in its passage through the lungs, and in its return excites the heart to more powerful exertion, by which the whole arterial system is distended. This stimulates the vessels to contract with vital energy; the action and reaction are great; the contractions strong; all is activity, all is vigour.

Hence it is that if, of two brothers, one takes to a sedentary life, and the other is constantly engaged in hunting, shooting, fishing, or in the cultivation of the earth: this with a ruddy countenance and rigid fibre, will enjoy high health, whilst the other pale, bloated, and relaxed, will be incessantly consulting his physician.

Of the different kinds of exercise, none is to be preferred to riding, because it agitates every part of the machine, and most powerfully promotes the action both of the exhalants and absorbents. SYDENHAM relates the case of a friend, who, by neglect of exercise, had brought himself into so deplorable condition, that he was dying of a colliquative diarrhœa, which no medicines could relieve. This man, by the advice of his sagacious physician, mounted his horse, defied all weather, paid no at-

tention to his diet, but rode, at firſt ſhort diſtances in proportion to his ſtrength, and continuing this practice without interruption for many months, he came at laſt to ride his twenty or thirty miles a day without fatigue, and was reſtored to perfect health and ſtrength.

My friend Dr. STACK was conſulted by the relations of a young nobleman then dying of atrophy, as it was thought in Paris, to whom he recommended the Bath waters. The young nobleman was driven to deſpair by this advice, becauſe he could not walk acroſs his room, and was confined chiefly to his bed. But the marchioneſs his mother, a lady diſtinguiſhed for ſpirit and reſolution, prevailed on him to riſe, ſupported him in his carriage, revived him with cordials when he fainted, and by ſhort ſtages at firſt, in leſs than ſix weeks brought him to my friend at Bath in perfect health.

In a very ancient hiſtory of Cornwall mention is made of M. Atwel, a clerical phyſician, who infallibly cured all diſeaſes; and ſo great was his celebrity, that patients travelled to him from every part of the iſland weſt of London, to know what quantity of apples and milk, for, excepting manus chriſti, and ſuch like cordials, that was the only medicine he preſcribed, would be good for them. Few of theſe, if they came from a *great diſtance*, conſulted him in vain, before they got home they were reſtored to health. Carew's Survey of Cornwall, p. 60.

SYDENHAM

SYDENHAM aſſures us, that he has frequently cured both tabes and phthiſis by horſe exerciſe and long journies, when all medicines had been given in vain, and this not merely in the incipient ſtages, but when night ſweats and diarrhœa, uſually the concluding ſymptoms, had appeared. MORTON expreſſes in moſt energetic language ſome ſentiments reſpecting the benefits to be derived from air and exerciſe, and we may venture to affirm, that moſt kinds of cachexy may be cured by theſe alone, even without the aid of a phyſician.

Frictions, in ſome degree, anſwer the end of exerciſe, by diffuſing vital heat and promoting the circulation of the blood. The benefit to be derived from hence is evident in horſes, who never enjoy high health when confined to ſtables, unleſs they are well combed and bruſhed.

Bandages, by preſſure, aſſiſt weak veſſels and promote abſorption. It is for this reaſon that BOERHAAVE recommends compreſſion in diſeaſes of the weak relaxed fibre, becauſe when either fibres or veſſels are diſtended beyond their tones, their vital action will be weakened till it is wholly loſt. And JOHN HUNTER has admirably ſtated that the beſt exciting power is preſſure, which, if urged beyond the point of eaſe, ſets the abſorbents of the part to work, for the purpoſe of removing either the ſubſtance preſſing or the part which is preſſed. Theſe therefore, in ſome caſes, may be uſefully applied.

In cachectic patients, attention must be paid to the organs of digestion, which are usually deranged, and loaded either with indigested sordes, corrupted bile, or phlegm. If the stomach is affected, an emetic must be given, or if the smaller intestines require to be cleansed, gentle cathartics will be required, which in most cases may be followed by tonics and astringents. This the incomparable *Boerhaave* has enjoined.

Ut vero organa primarum coctionum itidem bene disponantur, leni digestivo, vomitivo, purgante roborante, prospiciendum, § 1177.

But whilst *emetics* prepare the digestive organs for tonics and astringents, they in many cases serve another useful purpose, by promoting absorption in every part of the system. *Cathartics* have the same effect, and among these none is more powerful than mercury, whether externally or internally applied. Indeed every increased evacuation excites absorption from distant parts, but independent of this effect, mercury stimulates the absorbents, and thereby excites their action.

Diaphoretics and *diuretics* will find their place when we proceed to treat of the several genera comprehended in this class.

But the most effectual stimulant in all cachectic cases, attended by diminished excitement, is *steel*. This was the favourite remedy of SYDENHAM and BOERHAAVE, and it has continued to maintain its credit in the hands of all the most successful practitioners

titioners to the preſent day. To this Dr. SMITH owed his celebrity, and, from the experience of thirty years, I can venture to aſſure the ſtudent, that in few cachectic diſeaſes will it ever fail to cure. Profeſſor VAN SWIETEN ſays, "In practice I have met "with innumerable caſes in which cachexy has been "cured by this remedy alone joined with grateful "aromatics, after mild evacuants had cleared the firſt "paſſages from mucus, filth, and indigeſted food; "and he particularly aſſures us, that by ſteel fil-"ings he never failed perfectly to cure cachectic "virgins, provided they conſented to take air and "exerciſe, and to avoid warm liquids."

Chalybeates have certainly a two-fold effect, for, as the natural vehicle of oxygen, and the conſtituent principle of red blood, they ſtrengthen the digeſtive organs and they excite the abſorbents. Indeed all the metallic oxyds, excepting the mercurial, act in the ſame manner, only in a ſuperlative, and therefore in a leſs manageable degree. For this reaſon *iron* has maintained its empire, and whilſt we have one oxyd, which, when conjoined with the inhalation of *vital air*, in theſe caſes may be regarded as infallible, we need be leſs ſolicitous about the reſt.

I cannot conclude this article without making mention of *electricity*, which, as a powerful ſtimulant, has not only reduced ſwellings from ſprains, and promoted the ſpeedy abſorption of conſiderable glandular and ſcrophulous tumours; but is known to attenuate fluids, and to excite ſtrong action in the animated

animated fibre, by which, among other remarkable effects, it quickens vegetation, increaſes perſpiration, and reſtores the menſtrual flux.

The ſymptoms and diſeaſes produced by exceſſive action of the abſorbents belong to other claſſes, either to the PYREXIÆ, or to the LOCALES, as we have ſeen in Section II. and therefore will not be conſidered here: yet, from what I have already ſaid, it will not be difficult for the ſtudent to comprehend both their nature and their cure.

In caſes of inverted action of the abſorbents, ſuppoſing ſuch caſes to exiſt, we muſt naturally look to tonics, becauſe every kind of irregular motion in the ſyſtem has for its prediſponent cauſe morbid irritability, attended by debility, or, as JOHN HUNTER has beautifully expreſſed himſelf, "increaſed diſpoſition to act without power to act with."

Claſs III. CACHEXIÆ.

Order I. MARCORES.

DISTINGUISHED BY UNIVERSAL EMACIATION.

IN this order Dr. CULLEN in his noſology ſuppoſed two genera, *atrophia* and *tabes*, but in his practice he conſiders them as one. Might he not with propriety have placed DIARRHŒA and DIABETES here? They certainly would look better than where he left them.

Genus LXII. *Tabes.*

Emaciation and Debility with Hectic.

SECTION I.

OF NUTRITION.

THE articles of diet are: 1. Animal ſubſtances; 2. Vegetables; 3. Wine with fermented liquors; 4. Water. Let us conſider theſe in order, and examine chemically of what nutritive ingredients they are compoſed.

1. *Animal*

1. *Animal ſubſtances* contain,

a. Hydrogen, which, when combined with the matter of heat, is *inflammable gas*; with oxygen is *water*; and with azot conſtitutes *ammonia*.

b. Carbon, which, with oxygen and the matter of heat, is *carbonic acid gas*, commonly called fixed air, and with hydrogen is the *hydro-carbonate*, on which with oxygen and iron depends the florid colour of the blood.

c. Azot, which, with oxygen in the proportion of two of the former to one of the latter mechanically mixed, is *atmoſpheric air*; but when the proportion of oxygen is increaſed, this combination by chemical union makes the *nitrous* and the *nitric acids*.

d. Sulphur, which, when combined with oxygen in the proportion of 72 to 28, is *ſulphuric acid*, or if united with hydrogen and the matter of heat is *hepatic gas*, that is *ſulphurated hydrogen*.

e. Phoſphorus, of which, when 28½ is united by combuſtion with 71½ of oxygen, 100 of *phoſphoric acid* is produced, whilſt the whole of their light and heat are

are diſengaged, for in this operation there is no ſmoke, no vapour, to leſſen the ſenſible quantity of either. With hydrogen it takes fire ſpontaneouſly in air, but much better in oxygen gas.

f. Iron conſtituting the red particles of blood.

Together with theſe combuſtible ingredients, animal ſubſtances contain a certain quantity of oxygen, of which fat has a much leſs proportion than the muſcular parts, and is therefore more nutritious. The bones contain, with animal gluten, a conſiderable portion of calcareous earth and phoſphoric acid.

2. *Vegetables* contain chiefly hydrogen and carbon with a quantity of oxygen in a triple combination, which continues till caloric, that is, the matter of heat, diſturbs the balance of affinities: but with the heat of boiling water, the oxygen and part of the hydrogen become water, the reſt of the hydrogen with part of the carbon becomes eſſential oil, and what remains at the bottom of the ſtill is carbon. With a greater degree of heat different combinations are formed, for neither oil nor water are produced.

Some vegetable ſubſtances abound with *oil*, others with *ſugar*, all contain ſalts, magneſia, calcareous earth and iron, with a ſmall portion of azot.

Oil

Oil contains nearly 79 of carbon to 21 of hydrogen.

Sugar has, in 100 parts, 28 of carbon, 8 of hydrogen, and 64 of oxygen.

Fruits, unripe, contain a greater proportion of oxygen; but being expoſed to the ſun, they part with a portion of their oxygen, and when ripe retain very little.

3. *Wine* contains hydrogen and carbon in different proportions according to its ſtrength or weakneſs. In fermentation it takes oxygen from the atmoſpheric air and becomes *vinegar*; but by diſtillation it yields alcohol or pure ſpirit, which contains about one fifth of hydrogen, for 16 ounces of alcohol by combuſtion, uniting with oxygen from the atmoſpheric air, produces 18 ounces of water.

4. *Water*, as we have juſt obſerved, is not a ſimple element, but a compound of hydrogen 15 to 85 of oxygen.

This analyſis, adopted from LAVOISIER and JACQUIN being premiſed, I proceed to ſtate, that aliments, whether taken from the animal or vegetable kingdoms, are nutritive in proportion to the combuſtible matter they contain. Hence it is, that of all the articles of diet, the fat of animals and vegetables, abounding either with oleaginous or ſaccharine matter, for nouriſhment, command the preference.

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I have frequently had occaſion to obſerve in the South of France, and in ſome parts of Spain, that during the vintage children grow plump, and it is well known that negroes in the ſugar iſlands fatten quickly on the cane juice. Dates have nearly the ſame effect, and in Greece the peaſants thrive remarkably on figs, which, as we are informed, was anciently the food of wreſtlers. In many parts of England, the farmers formerly grew fat with ale, which, being extracted from malt, conſequently contains, like all the preceding articles, much ſugar.

It is now underſtood, that poulterers ſupply their fatting coops, not merely with barley and oats as formerly, but with hempſeed, which contains oil in great abundance, and with a conſiderable quantity of ſuet.

All the ſubſtances above enumerated being properly blended give vigour to the ſyſtem, but there is ſcarcely any combuſtible, but what contributes to the ſupport of life. Some tribes have lived wholly upon fiſh, others upon fleſh; whilſt numerous hordes have been confined to milk and vegetables. I knew one gentleman at Edinburgh, a medical ſtudent, who for a conſiderable time ſupported life by ſugar; another who ſupplied the vital flame for many days with opium; and it is well known that veteran ſots take ſcarcely any other food but gin or brandy. All nations covet the ſubſtances which are moſt inflammable. In temperate and humid

climates, where paſtures abound with herbage, butter is a part of the daily aliment; but in ſultry and frozen regions oil muſt ſupply its place. In the latter, for this purpoſe, they catch ſome ſorts of fiſh; in the former they cultivate the olive.

It is not, however, in theſe articles alone that combuſtible matter conſtitutes a part of diet; for ardent ſpirit, either pure or diſguiſed under a variety of forms, is the daily beverage of all who can procure it. The ſugar-cane, the maple wheat, barley, oats, and rice, ſupply it to nations who never cultivate the vine; and even the wandering hordes of Tartars have contrived to extract it from their koumiſs, the toilſome produce of mares' milk. It has been ſuppoſed, that water itſelf is decompoſed by the organized fibre to furniſh oxygen for the purpoſe of irritability and life. It is certainly decompoſed by plants, from the leaves of which the oxygen, united to the ſolar ray, or at leaſt by the ſolar ray combined with caloric, flies off in the form of vital air, whilſt the hydrogen remains. The ſame may be ſaid of fiſh, for RONDELET, in his work *de piſcium nutritione*, cites a great number of examples of marine animals, which by the very conſtitution of their organs can derive nouriſhment from no other ſource but water; and he particularly mentions his having kept a fiſh three years in a veſſel of pure water without other nouriſhment, and that during this time it continued to increaſe in ſize till it had completely filled the veſſel. Every

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one knows, that frogs and toads have been diſcovered in rocks and trees, where they could have nothing to ſupport them but pure water, and that gold fiſh thrive by that alone. Hence it ſeems to be evident, that ſome animals, like plants, decompoſe water to form new combinations; but that water, as ſuch, and not merely as a ſolvent or vehicle, contributes generally to animal nutrition has not yet been ſatisfactorily proved.

I have endeavoured in my firſt volume to explain the proceſs of digeſtion.

From the ſtomach the aliment paſſes to the ſmall inteſtines, where, as in the ſtomach, numerous lacteals abſorb that part, which has been previouſly digeſted, and convert it into chyle. This they convey through the thoracic duct into the ſyſtem to augment the common maſs of circulating fluids.

During the courſe of circulation, the chemical operations are continued, and new combinations inceſſantly take place. Of theſe one of the moſt remarkable is, that in which the lungs aſſiſt by the plentiful ſupply of *oxygen*, as the univerſal pabulum of life and flame, whilſt they emit the ſuperabundant carbon and hydrogen, which united with caloric and oxygen eſcape in the form of air and water. Thus the ſtomach is conſtantly providing the inflammable principle, whilſt the lungs inceſſantly contribute what is wanting to feed the vital flame. We may therefore be permitted to remark, that no images could have been more agreeable to nature,

than thoſe adopted by the ancients, when they compared life to the burning of a lamp, and repreſented death by the inverted torch.

Thus far I have taken notice only of the hydrogen; but now the other component parts of animal ſubſtance call for our attention.

Carbon ſeems to be the baſis of the bond of union to connect the ſeveral principles which conſtitute the animated fabric. When cauſtic alkali or quicklime deprives animal ſubſtances of their carbon, this union is diſſolved. In carbonic acid air fleſh remains unchanged; in hydrogen it is preſerved; but in oxygen gas it putrefies, quickly; the balance of affinities is diſturbed and new combinations take place; the oxygen diſappears, and with it water, and carbonic acid gas, are formed. It is a well known experiment, that hanging freſh meat in a fig-tree expoſed to the ſun and air makes it quickly tender: and ſince the experiments of Dr. Ingenhousz, we can underſtand this proceſs, for the green leaves yield their oxygen to the ſolar beams: but if hung over fermenting beer it continues tough.

By the late very valuable publication of Dr. Beddoes on factitious air, it may be ſeen, that poultices in the act of fermentation ſtop the progreſs of mortification, that is, whilſt they emit carbon, for charcoal in powder has the ſame effect. It appears likewiſe, that oak bark, which contains carbon in the greateſt abundance, has the ſame benign effect

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on ſcrophulous ulcers, reſtoring tone and tenſion to the relaxed veſſels and diſpoſing them to heal.

If I am not much miſtaken, it is for the purpoſe of obtaining a greater quantity of carbon than the ſtomach can derive from animal ſubſtances alone, that nature calls aloud for vegetables, as I ſhall more particularly notice when I proceed to treat of ſcurvy. And I am not only inclined, with many eminent profeſſors, to attribute much to carbonic acid gas, whether combined in mineral waters or detached, and in a ſtate of fermentation, when given internally in caſes of debility with a relaxed condition of the ſolids and diſſolved ſtate of the blood, as in typhus; but to this alſo I would aſcribe the ſuperior efficacy of the peruvian and other barks, becauſe they abound with carbon. I muſt here obſerve, that both hydrogen and carbon, although deleterious in the extreme, when applied directly to the lungs, are moſt grateful to the ſtomach, and contribute both to life and health.

Azot ſeems to be derived from atmoſpheric air, but whether it be ſo, or whether it was originally of animal production, it is not eaſy to determine. All animal ſubſtances, by putrefactive fermentation, produce it in abundance, and either in this way, or by diſtillation, it unites with hydrogen to form ammonia, which may be procured either from urine or from blood; but it is uſually obtained from the horns and hoofs of quadrupeds. It is the *azot* which promotes the putrefactive proceſs, for fleſh

being confined in azotic gas, quickly turns black, and is corrupted ſooner than in any other air. It is a perfect conductor of electricity; but what purpoſe it anſwers in the animal economy has not been yet diſcovered.

Sulphur is ſaid to be a component part of animal ſubſtance, but in what proportion, or for what end, has never been aſcertained; neither has it been demonſtrated from whence we are to derive its origin. We find it ſaturated with oxygen, and combined with vegetable alkali, in plants, particularly in the tamariſk (*tamarix*); and M. Deyeux has communicated ſeveral proceſſes, by which it may be obtained pure uncombined with oxygen, and chriſtallized, from the roots of plants. We obtain it from pyrites and from alum, but then it muſt be obſerved, that neither alum nor pyrites are diſcovered either in granite, or in the clay that is derived from the granite, for theſe ſubſtances are found only, as far as my obſervations go, in that ſpecies of clay which ſeems to have been produced by the diſſolution of organized bodies, the clay which accompanies calcareous earth and chalk. And although the latter contains ſome maſſes of pyrites; yet we have no reaſon to conſider this as an objection, for pyrites itſelf is produced from vegetables, and therefore it confirms my conjecture, that ſulphur is originally derived from organized bodies. When I was laſt in Paris, M. Sage gave me ſome beautiful octaedral cryſtals of ſulphur, found by him near

near the gate St. Antoine, in the common receptacle of human ordure, and which he conceived to be derived from the vitriolic acid of the gypſum with which it was blended, for this was partly decompoſed, and therefore fermented with vitriolic acid. His opinion ſeems to me well founded; but ſtill this ſulphur appears to have been derived from animals, becauſe the calcareous baſis of the gypſum claims that origin, and in a ſtate of chalk moſt probably contained pyrites, or perhaps ſulphur, and in either caſe with oxygen it would furniſh vitriolic acid for the gypſum. The proceſs by which this ſulphur was produced may be readily underſtood, by conſidering what paſſes in a ſomewhat ſimilar operation, for if either aluminous ſchiſt or gypſum with charcoal are ſubjected to a red heat, carbonic acid eſcapes in the form of gas, and ſulphur remains with clay or lime, according as either of theſe was employed in the ſtate of combination with the vitriolic acid.

That ſulphur may be taken into the ſyſtem, and paſs both by perſpiration and by urine, is moſt notorious; but even when no ſulphur has been taken, hepatic gas is frequently diſcharged, and therefore ſeems to have been generated in the body.

Phosphorus is decidedly an animal production, but all the purpoſes it anſwers in the animal œconomy will not be eaſily determined. We know that it combines with calcareous earth to give ſolidity and firmneſs to the bones, and that it is diſcharged

in great abundance in the urine; but how it is generated, in what way it contributes to general health, or in what proportion, according to the ſeveral actions or morbid affections of the ſyſtem, it is ſecreted by the kidneys, does not appear, nor have practitioners the power either to increaſe or to diminiſh the quantity produced.

Iron is contained in blood, in which it is the natural vehicle of oxygen, and being oxygenated gives the florid colour.

This metal appears to me to have derived its origin from animals and vegetables. At leaſt we may remark, that it is univerſally found in vegetables and in the red blooded animals. It is a conſtituent part of limeſtone, often in great proportion, more eſpecially in ſpathous iron ore, and it abounds in the clays which attend the ſecondary mountains, both which circumſtances have been produced by the diſſolution of organized bodies. Iron ore contains nearly one fourth manganeſe, but then manganeſe likewiſe is found in all vegetable aſhes.

This wonderful metal, according to its degree of oxygenation, aſſumes all the colours of the rainbow, as may be eaſily ſeen by putting a bright poker in the fire, and with different acids it appears either red, yellow, blue, or the intermediate colours; but with vegetable aſtringents it is black.

Iron is found not only in the red globules of the blood, but in the bile; and here it may be remarked

marked not only that the ſtrongeſt animals have moſt red globules, but that their vigour bears proportion to the red globules. This obſervation agrees with what has been ſaid of oxygen, as contributing to vital energy; becauſe iron is a proper vehicle of that invigorating principle. None of the perfect metals ſo powerfully attracts it, for the ſlighteſt degree of humidity calcines it quickly. The uſe of iron in the ſyſtem will appear from hence, that when given for thirty or forty days to a pale, bloated, languid, chlorotic virgin, who, with coldneſs of the extremities, low ſpirits, loſs of appetite, feeble pulſe, palpitation, and other ſymptoms of debility, is ſcarcely able to walk, the vital heat increaſes and is univerſally diffuſed, her pulſe acquires ſtrength, the pale and ſallow countenance is painted like the roſe, her appetite returns, her ſpirits riſe, and by acceſs to vital air, with proper exerciſe, ſhe perfectly recovers her activity and health.

Sleep, if not too long protracted, contributes to nutrition, for it ſeems to be in this quieſcent ſtate, when every muſcular fibre is relaxed, that the ſolids are repaired, the fat is depoſited in its proper cells, the digeſtive proceſs is promoted, the animal ſpirits are renewed, and the vital energy, expended and exhauſted during the day, is again accumulated during the repoſe, the darkneſs, and the ſilence of the night.

SECTION II.

OF THE OCCASIONAL CAUSES OF EMACIATION AND DEBILITY.

Emaciation and debility are occaſioned by a variety of cauſes.

1. *By deficiency of food*, which may reſpect either quantity or quality: for ſhould even the quantity be as much as the ſtomach can digeſt, yet if the aliment does not ſufficiently abound with hydrogen and azot, as well as with carbon, the conſequence will be a loſs of ſtrength and fleſh. If the vegetable man, eating herbs, and drinking only water, were compelled to work, like one who eats heartily of fleſh, and drinks fermented liquors, he would be ſoon emaciated, and die perfectly exhauſted. What a miſerable figure would a Gentoo from India make among our fire-men, ſugar-bakers, coal-heavers, or common London porters! His fleſh, ſuch as it is, ſcarcely hangs upon his bones, and is little ſuited to powerful exertions; whilſt their tenſe and turgid muſcles are employed in unremitted labour, and ſcarcely know what it is to feel fatigue.

2. *By indigeſtion*, when the food is either rejected by the ſtomach, or not well concocted there. To underſtand this the ſtudent may conſult what has been

been ſaid of digeſtion and dyſpepſia under the genera 1 and 39, vol. i.

3. By *viſcid mucus* lining the ſtomach and ſmall inteſtines, as in *hypochondriaſis* and *tuſſis ſtomachalis*, treated of in the former volume. This prevents the entrance of the digeſted aliment into the lacteals, and at the ſame time both impedes and depraves digeſtion.

4. *By Poiſons*, which either deſtroy, as cauſtics, the very texture of the abſorbents, or produce in them, by violence of ſtimulus, either palſy or ſpaſmodic action; and in either caſe prevent nutrition.

5. By *ſcrophulous meſenteric glands* intercepting the chyle in its paſſage through the lacteals to the thoracic duct. This however is not the only way in which they produce emaciation, for they are certainly more than channels to convey the chyle, and therefore, when they are themſelves diſeaſed, they cannot perform their proper office of concoction.

6. By *profuſe evacuations*, whether by diarrhœa, by diabetes, by ulcers, by hæmorrhage, by leucorrhæa, by the cutaneous pores in perſpiration, by the ſeminal veſſels, by the breaſts in nurſes, or by the ſalivary glands. In all animals the adipoſe membrane is a reſervoir from which the vital lamp is occaſionally ſupplied with oil, either for long journies, ſickneſs, or protracted ſleep. Hence it is, that birds of paſſage on their firſt arrival, men recovering from fever,

fever, and the various tribes of animals who remain torpid in the winter, having conſumed their ſtore, are remarkable for want of fat.

By *old age.* This ſeems to ariſe chiefly from the obliteration of veſſels as we advance in years; but it may depend likewiſe on other cauſes. For from the weakened energy of the heart venous plethora ſucceeds, and the blood moves ſlowly in the veſſels. Hence it derives leſs *oxygen* from the atmoſphere, for it is aſtoniſhing to obſerve what a quantity of air children vitiate and conſume when compared with old age.

As the force of the heart diminiſhes, the fluids are protruded leſs forcibly into the minuter veſſels, and as the quantity of oxygen decreaſes in the ſyſtem the vital energy is leſſened continually till it is wholly loſt.

But whether it be, that the aged fibre loſes its attraction for the principle of irritability; or whether it be, that it pertinaciouſly retains it; certain it is that with increaſing years the irritability of the moving fibre, and the activity of the vaſcular ſyſtem as well as the ſenſibility of the nerves, are gradually, regularly, and conſtantly diminiſhing from infancy to old age. Hence it is, that tenſion and tone, as we advance towards the decline of life, are ſo much impaired, that emaciation and debility become the never failing attendants on decrepitude.

Theſe are the circumſtances which diſtinguiſh the ſeveral ſpecies of this genus.

SECTION

SECTION III.

OF HECTIC.

THE hectic pyrexia has remiſſions and exacerbations twice a day, with evening chills clearly marked, followed by morning ſweats. In this affection the appetite is various, thirſt moderate, heat and dryneſs of the ſkin prevail, the tongue is clean, and increaſes conſtantly in redneſs; the urine is high coloured, and lets fall a branlike ſediment; pulſe hard, weak, and frequent, more eſpecially after eating towards the evening; the countenance is pale, but has a circumſcribed red ſpot on one or both the cheeks, more eſpecially during the exacerbation; the eyes have a pearly whiteneſs; coſtiveneſs at firſt prevails, but towards the cloſe a diarrhœa ſupervenes; emaciation and debility increaſe continually, the legs become œdematoſe, and delirium cloſes the ſcene.

It may thus be readily diſtinguiſhed from both ſynocha and typhus. The ſyſtem chiefly affected is, in ſynocha, the arterial with ſtrong vaſcular excitement; in typhus, the nervous ſyſtem with conſiderable increaſe both of ſenſibility and irritability; in hectic, the abſorbent ſyſtem without either ſtrong vaſcular excitement, remarkable increaſe of ſenſibility, or any tendency to ſpaſm.

This

This affection attends morbid emaciation like its ſhadow. It is likewiſe the common ſymptom of dropſy, of chloroſis, of rachitis, of worms and poiſons eroding the inteſtines. It attends cancerous, ſcrophulous, and ſyphilitic ulcers, ariſing however not from abſorption of either pus or matter, as JOHN HUNTER has demonſtrated, becauſe till the ſtimulus for reſtoring a part is given, that is, till the abſceſs is opened and proper inflammation follows, hectic does not take place, nor even then if the parts are well diſpoſed to heal. But when nature is haraſſed by ineffectual efforts to relieve herſelf from ſome incurable diſeaſe, whether produced by the ſcrophulous, cancerous, or by the ſyphilitic virus; then hectic commences, always more ſpeedily in proportion as the part affected is important to the purpoſes of life; and no ſooner is the irritating cauſe removed, as in the extirpation of the cancerous breaſt, or the ſeparation of a ſcrophulous joint, than hectic ceaſes.

SAUVAGE, who, like moſt noſologiſts, ſeems to have been perplexed where to arrange his hectic, has made it a genus under *febres*, and has included in it thirteen ſpecies, all which, coinciding with the correſpondent ſpecies of his atrophy and tabes, need not to be particularly mentioned.

SECTION

SECTION IV.

OF THE SPECIES OF TABES.

Dr. Cullen in his nosology, following Sauvage, has considered atrophia and tabes as two distinct diseases, but he has not adopted all his species, for Sauvage enumerated no less than sixteen of the former, which Cullen reduced to four, and seventeen of the latter, which Cullen in his nosology reduced to three; but in his First Lines, dropping *atrophia cacochymica*, in its place he substituted his own *tabes scrophulosa*.

This he was the more inclined to do, because he felt, and indeed acknowledged, the impropriety of separating atrophy from tabes, since the former may fairly be considered merely as a symptom of the latter.

From what has been delivered on the occasional causes of emaciation, debility, and hectic, it will appear, that *tabes* may claim seven species.

1. Tabes *famelicorum*, arising from deficiency of food, as in the case of infants sent out to nurse, when perhaps three children hang upon the breast, which was designed for one.

2. Tabes *dyspeptica*, arising from indigestion, when from morbid irritability the food is instantly reject-

ed by the ſtomach, or from any cauſe is badly concocted there.

3. Tabes *hypochondriaca.* In this ſpecies the nutriment is intercepted by viſcid mucus in the firſt paſſages, as happens frequently to rickety children, to wormy patients, and to drunkards, in whom the mucous glands are much relaxed. With regard to wormy patients, no one doubts the exiſtence of phlegm in the inteſtines giving harbour to thoſe vermin. Of rickets I ſhall ſpeak hereafter; and with reſpect to the hectic atrophy of his bibulous heroes, HOFFMANN has moſt judiciouſly remarked, *Sæpe hecticum hoc malum in principio a ſola atonia pendet.* Vol. II. p. 182.

4. Tabes *venenata.* This correſponds with the *hectica ſtomachica et inteſtinalis* of Hoffmann, which he attributes to acrid bile, violent cathartics, and corroſive ſubſtances.

5. Tabes *ſcrophuloſa.* This ſpecies comprehends all caſes in which diſeaſed glands occaſion atrophy. It takes in therefore the *tabes glandularis, tabes meſenterica, atrophia infantilis,* with the *atrophia rachitica* of Sauvage, and the tabes, to which inebriates are ſubject from ſchirrhous glands, whether of the liver, ſpleen, pancreas, or meſentery, and from tubercles ſeated in the lungs.

6. Tabes *inanitorum* occaſioned by profuſe evacuations. This includes the *atrophia a ſanguifluxu;*

atrophia

atrophia a leucorrhœa; *atrophia ab alvi fluxu*; *atrophia a ptyaliſmo*, *tabes ulceroſa*, *tabes ſudatoria*, *tabes nutricum*, *et tabes dorſalis* of Sauvage, of which the laſt is perhaps the moſt deplorable of all diſeaſes. I have met with two caſes of it, and hope I ſhall never be witneſs to a third. It is the ſcourge of unreſtrained libidinous deſire, and renders life a moſt intolerable burthen. The wretched victim to his own imprudence is tormented from head to foot with pain, burnt up with hectic, waſted to a ſkeleton, and racked in every joint with ſpaſms. His limbs tremble; he has a loathing for his food; his ſight gradually fails him, and he becomes at laſt quite blind. He is conſcious that he brings all this evil on himſelf; yet his deſires increaſe, and he feels that he has not power to reſtrain them. The night brings him no relief: he ſleeps, but his deſires are awake; he dreams of happineſs, but he awakes to miſery; and it is in death only that he can hope for reſt; yet ſuch is the gloom that hangs heavy on his mind, that he is haunted inceſſantly with terrors, and is afraid to die.

7. Tabes *ſenilis*. This muſt not be confounded with the *atrophia ſenilis* of Sauvage, becauſe that has merely emaciation and debility, but is free from hectic. The diſeaſe in queſtion is the *maraſmus ſenum* of Hoffmann, and is deſcribed by him as a common and fatal *hectic* of old age. The body waſtes, appetite decays, the ſtrength is gradually conſumed; all the bones are viſible through the parched

parched and rigid ſkin; the vital heat forſakes the circumference of the body, and is collected in the centre; the pulſe is hard and frequent, reſpiration labours, the voice is hoarſe, the tongue is dry, ſleep is deficient in quantity and not refreſhing, coſtiveneſs prevails, and at the end of ſix months the patient dies.

SECTION V.

OF THE INDICATIONS OF CURE IN TABES.

THESE will vary according to the ſpecies, yet in general we may obſerve with Dr. CULLEN, that when tabes is purely ſymptomatic, the cure muſt be that of the primary diſeaſe; but when it is idiopathic, it will in ſome caſes be ſufficient to remove the remote cauſes, which, after what has been delivered, can ſcarcely eſcape our notice.

It is obvious that in *tabes famelicorum* attention muſt be paid to the nutriment, yet with this caution, that in point of quantity and quality united it muſt not be rapidly changed from bad to better. The reaſon for this caution has been ſufficiently explained at the commencement of this work. The change therefore muſt be gradual, and the moſt nutritive aliment muſt have the preference, becauſe the load will be the leſs on the weakened organs of digeſtion.

Of

Of tabes *dyſpeptica*, tabes *hypochondriaca*, and tabes *ſcrophuloſa*, I need only ſay, that what has been delivered, either in this work or by the beſt medical authors on theſe diſeaſes, muſt be conſulted.

In tabes *venenata* the directions of Profeſſor HOFFMANN are excellent. Avoid, ſays he, every thing acid, ſaline, and ſtimulant, with ſuch articles of diet as readily ferment. Take the food that is moſt eaſy of digeſtion; and for medicine be contented with demulcents, the milder tonics, and the moſt gentle of the vegetable aſtringents. There may be a decoction either of ſaſſafras and caſcarilla, or of chamomile flowers and the ſummits of milfoil in milk: good broth with althæa root and rice; and gum tragacanth diſſolved in mint water Clyſters, if required, may be made of milk with yolk of egg, turpentine, honey, and ſyrup of althæa; and in caſe of ſpaſmodic pain in the bowels he recommends his antiſpaſmodic pills, compoſed of the extracts of chamomile, milfoil, and ſaffron, with caſtor and oil of nutmegs.

Tabes *inanitorum* requires particular attention to prevent the profuſe evacuation, whatever it may be, whether by *hæmorrhage*, *diarrhœa*, *diabetes*, or by *menorrhagia alba*; in all which caſes the primary diſeaſe muſt be conſulted.

In caſes of immoderate ſalivation, brought on by mercury, the ingenious Dr. GARNET of Harrogate gives *kali ſulphuratum*, which never fails to abate the evacuation in 24, or at moſt in 48 hours.

For this effect he very judiciouſly accounts by ſuppoſing, that on the decompoſition of water, in which the medicine is given, by the kali ſulphuratum, ſulphurated hydrogen gas is produced and conveyed into the blood, where the hydrogen unites with the oxygen of the acid menſtruum of the mercury, and forms water; whilſt the ſulphur converts the mercury into an ethiops, which is very inert. See his letter to Dr. BEDDOES in obſervation on factitious air, publiſhed by Johnſon in St. Paul's Churchyard.

Should a nurſe prove unequal to the drain of milk made by her tender charge, no medicine will relieve her from the diſtreſſing ſymptoms, till ſhe has weaned the infant. How many, from a fond and fooliſh affection, have given ſuck to a luſty child for months after it has been upon its legs! And how many, from the preſſure of diſtreſs and poverty, have undertaken to rear two ſucklings, when from poverty they have not had milk enough for one! In this caſe nothing effectual can be done till ſhe has removed the occaſional cauſe of the diſeaſe. The ſame may be ſaid of any other drain, which nature is unable to ſupport.

Tabes ſenilis, were it conſidered merely as the conſequence of increaſing years or of decrepitude, would call for patience and reſignation, not for medicines. But this is not the light in which it muſt be viewed. As a diſeaſe, it requires medical aſſiſtance, and Hoffmann, to whom we are indebted

for

for an accurate enumeration of its ſymptoms, has given us directions for its cure. For this purpoſe he recommends temperance, exerciſe, and diluents, with the aſs's milk and gentle laxatives.

In every ſpecies of tabes, attention muſt be paid to the alimentary canal, and if the firſt paſſages are loaded, they muſt be cleared by emetics, after which, generally ſpeaking, myrrh and ſteel may be exhibited in the manner practiſed by Dr. GRIFFITH in hectic, and as mentioned in page 207 of my firſt volume.

Or,

From three to ten grains of ſteel filings may be given three times a day, in conſerve of roſes, with a few grains of aromatic powder.

Or,

℞ G. Myrrh, dr. 1. Tinct. Cort. Peruv. unc. 1. Solve Terendo et adde Aq. unc. 8. Sal. Martis, ſcr. 1. Salis Nitri, ſcr. 1½. Syr. Balſ. dr. 6. M. c. c. unc. 2. bis die.

That is,

Take myrrh one dram; tincture of the bark an ounce; grind it in a mortar, and add eight ounces of water; ſalt of ſteel a ſcruple; nitre half a dram; balſamic ſyrup ſix drams. Mix, and take two ounces twice a day.

Or,

In place of theſe either 77, 78, or 82, of my Phyſician's Vade Mecum may be adopted.

The various preparations of milk, mentioned in page 35 and 36 of my firſt volume, are excellent in every ſpecies of tabes, and may in ſome meaſure prove a ſubſtitute for *koumiſs*, the celebrated invention of the Tartars.

To make *koumiſs*, they put new mare's milk in a wooden veſſel, with one ſixth of water, and one eighth of ſour cow's milk. This they cover with a thick cloth and keep it moderately warm for 24 hours; then with a churn-ſtaff they beat it till the whole is intimately blended. At the end of 24 hours more they pour it into a narrow veſſel, and churn it till it is perfectly and uniformly mixed. In a cloſe veſſel, if not expoſed to heat, it keeps three months.

Dr. GRIEVE, to whom we are indebted for this information, aſſures us, that koumiſs proves a wonderful reſtorative in *hectic atrophy*, that is, in *tabes*, and he recommends ſix quarts of it to be taken every day.

Horſe exerciſe is ſtrictly to be enjoined in all caſes in which either the glands are obſtructed, or the ſtomach is relaxed, and therefore more particularly in Species 2, 3, 5, and 6. SYDENHAM, whoſe high expectations from horſe exerciſe has been already ſtated, ventures to affirm, that riding for hectic is equal in efficacy to mercury for ſyphilis, and the Peruvian bark for intermittents. And MORTON, than whom no one ever wrote better on hectic atrophy, ſtrongly recommends the

ſame

ſame practice to excite moderate perſpiration, to ſtrengthen the digeſtive organs, and to ſhake off the tough and viſcid mucus obſtructing the abſorbents of the ſtomach, and of the ſmall inteſtines, *ex ventriculi et inteſtinorum ſaburrâ acidâ, lentâ ſimul et viſcidâ, meatus obſtruente, &c.* p. 26.

Claſs III. CACHEXIÆ.

Order II. INTUMESCENTIÆ.

DISTINGUISHED BY GENERAL SWELLINGS.

IN this order we have thirteen genera; polyſarcia, pneumatoſis, tympanites, phyſometra, anaſarca, hydrocephalus, hydrorachitis, hydrothorax, aſcites, hydrometra, hydrocele, phyſconia, rachitis.

Genus LXIII. *Polyſarcia.*

OBESITY.

FROM what has been delivered on nutrition and emaciation, under the preceding genus, the nature and the cure of obeſity may be clearly underſtood. It has been univerſally obſerved, that people who

eat heartily of animal food, and drink freely, more eſpecially of ſtrong beer, who take little exerciſe, and by ſleep give long reſpites to the fatigue of thought, uſually accumulate a great quantity of fat, and it is upon theſe principles that poultry, pigs, and oxen, are fatted for the market.

For the cure of this diſeaſe no medicines muſt be had recourſe to, becauſe no remedy is to be expected but from temperance, a vegetable diet, pure air, exerciſe, and early riſing. A young gentleman having applied to BOERHAAVE for his advice, when oppreſſed by corpulency, was ordered to keep his eyes always open, and his mouth always ſhut.

It has been common for young people, when apprehenſive of being corpulent, to drink *vinegar*. By this practice they have indeed obtained their end; but they have deſtroyed their health. At this effect we cannot be ſurpriſed, becauſe they invert the order of nature, by making the ſtomach ſupply that oxygen which ſhould have been tranſmitted by the lungs. The more rational practice, moſt undoubtedly, is to limit the quantity of hydrogen received into the ſtomach, and to increaſe the quantity of oxygen reſpired, that is, with little nutriment to take much exerciſe, and that in the pureſt air. It is by ſuch means that the Newmarket jockies reduce themſelves to a ſtandard weight, and by ſuch means monſters for bulk have, with perfect ſafety, brought themſelves to a reaſonable ſize.

The

The ſubject of obeſity has been ingeniouſly treated on by Dr. BEDDOES; and my friend Dr. THORNTON has obſerved, that when fat people inhale *ſuper-oxygenated air*, they eat leſs, grow thinner, and yet find no deficiency of ſtrength.

Genus LXIV. *Pneumatoſis.*

AN elaſtic ſwelling of the body, crepitating under the touch.

It is cauſed by air in the cellular texture, which communicating over the body, by its expanſion renders the ſkin tenſe and elaſtic, as may be ſeen when butchers introduce it to make their meat look plump.

When the weight of the atmoſphere is taken off from animals, as in the exhauſted receiver, this effect is ſpeedily produced; but no ſooner is the equilibrium reſtored between the external and internal preſſure, than the animal returns to his accuſtomed ſize.

Dr. CULLEN has four ſpecies of pneumatoſis:

Pneumatoſis *ſpontanea* without manifeſt cauſe.

Pneumatoſis *traumatica* from wounds in the thorax.

Pneumatoſis *venenata* from poiſon.

Pneumatoſis *hyſterica* from hyſteric affection.

In caſe of wounds and violence we can eaſily account for this effect. Thus in the ſoldier mentioned by SAUVAGE, who fell into the hands of a banditti, we ſee him wounded in the groin, and a tube thruſt by theſe wretches into the wound; and, from the communication of the cellular texture, we readily comprehend, how the air forced into one part extended over the whole body excepting his hands and feet. Nor do we find more difficulty when we are to explain, how the ſame effect is produced by wounds in the thorax, whether by a ſword, or by a fractured rib. But all the other ſpecies of pneumatoſis are exceedingly perplexing. I ſhall therefore be ſatisfied with ſtating facts, without attempting to account for them.

Pneumatoſis has frequently happened in conſequence of fever. SAUVAGE makes mention of a boy aged only eighteen months, whoſe body was ſuddenly inflated, and whoſe brother died of the ſame diſeaſe. This boy was cured by copious evacuations both by urine and by ſtool. He ſaw likewiſe a ſurgeon, who, after a protracted intermittent, ſwelled univerſally, in ſome parts dropſically; but in his face, breaſt, hands, and thighs, the ſwelling was elaſtic. After this patient had for two years ſought relief in vain, he was ſuddenly reſtored to perfect health by electricity. Baron HALLER has collected many inſtances of pneumatoſis occaſioned by gangrene, ſmall pox, rickets, hyſteria, ſcurvy, and even by

by the ſuppreſſion of the lochia, and in oxen particulary by dyſentery.

SYDENHAM conſiders *pneumatoſis* as a common ſymptom of hyſteric affection. His deſcription is accurately juſt. He obſerves, this diſeaſe attacks almoſt every part internal and external; it ſeizes on the muſcles and occupies the jaws, the ſhoulders, the hands, the thighs, but particularly the legs and ancles, ſometimes with pain, at other times with ſwellings; the latter is the moſt remarkable, becauſe it neither increaſes towards the evening, nor pits like dropſy, but is elaſtic and greateſt in the morning. It generally affects one leg more than the other. Yet the reſemblance deceives the patient, and he is firmly perſuaded that it is hydropic. RAULIN remarks, that this ſpecies of pneumatoſis alternates ſometimes with diabetes, that is, I ſuppoſe, with a copious diſcharge of hyſteric water.

I had a patient in whom this ſymptom of hyſteria very frequently appeared and continued for ſome days; but whether ſhe had pain and ſwelling, or only ſwelling, ſhe never failed to be inſtantly relieved whenever either ſpontaneouſly, or by the aſſiſtance of an emetic, ſhe brought up a quantity of viſcid mucus from the ſtomach. I have been ſo often a witneſs of this effect, that I can have no doubt of the accuracy of the obſervation.

Poiſons, according to ſome naturaliſts and medical practitioners, produce elaſtic ſwellings of the whole

body, as an example of which, Linnæus mentions perſons who have been bitten by the ſerpent *aſping*, and Willis on tympanites refers to other poiſons.

As to the indications of cure, it muſt be confeſſed that ſcarifications, compreſſes, and in ſome caſes, the paracenteſis, are the only remedies on which we can rely. When pneumatic chemiſtry ſhall have made a progreſs in the world, and when philoſophic practitioners are able to explain how poiſons produce their wonderful effect, we may then hope to cure without the aſſiſtance of a ſurgeon. Vide MEDICAL EXTRACTS, Vol. III. page 376 to 385.

Genus LXV. *Tympanites.*

THE ſymptoms are elaſtic diſtenſion of the abdomen, not readily yielding to preſſure, and ſounding like a drum, with coſtiveneſs and emaciation, but no fluctuation.

In the beginning we obſerve flatulence and borborygmi, that is, hollow rumbling of the bowels. Thirſt and loſs of appetite, pain in the loins, and dyſpœna, with frequency of pulſe, ſucceed, and atrophy brings up the rear.

Dr. CULLEN has two ſpecies, tympanites *inteſtinalis*, and tympanites *obdominalis*; but I ſhall confine my

my obſervations to the former, becauſe the latter is a ſpecies of pneumatoſis. The perſons moſt liable to this diſeaſe are chiefly thoſe of a relaxed and irritable habit, ſuch as have been debilitated by profuſe evacuations, by intermittents, or by typhus fever, patients who have recently ſuffered by ſpaſmodic and inflammatory affections of the bowels, and particularly women after childbirth.

It is occaſioned ſometimes by *aſcites* and morbid affections of the liver; at other times by biliary or renal calculi; frequently by worms; and in one moſt curious caſe, reported by Van Swieten, it aroſe from hæmorrhagic effort after ſuppreſſion of the catamenia, and of the hæmorrhoidal flux.

It may likewiſe be induced by poiſons, when they occaſion flatulence and ſpaſmodic conſtriction in the bowels.

From what has been ſaid, we cannot be at a loſs for the proximate cauſe of this diſeaſe. There is evidently a preternatural diſtenſion of the inteſtines by air, producing loſs of tone in the muſcular fibres of the part diſtended, and, from what has been ſuggeſted on the proceſs of digeſtion, it muſt appear that the extrication of this air, or gas, in the ſtomach or the bowels, is to be attributed to ſome defect either in quantity or quality of the ſeveral fluids, the ſaliva, pancreatic juice, and bile, which are mixed with our aliment to aſſiſt in the reduction of it into chyle, and to reſtrain the progreſs of fermentation in the fæces, whilſt they are paſſing

paſſing the inteſtines. But this alone cannot be the proximate cauſe of tympanites; for with this muſt be united ſpaſmodic ſtricture in ſome part of the inteſtines, which prevents the eſcape of wind, and this ſpaſmodic ſtricture muſt be occaſioned by ſome irritation in the ſyſtem.

This view of the proximate cauſe is confirmed by anatomical obſervations, particularly by thoſe of PLATERUS, LITTRE, and DE HAEN. Theſe celebrated phyſiologiſts diſcovered the colon diſtended to the ſize of a man's thigh, and the ſtomach with ſmall inteſtines three times their uſual bulk. Theſe diſtenſions were obſerved in different parts of the alimentary canal, ſometimes in the ſtomach, at other times in portions either of the large or of the ſmall inteſtines forming conſtricted cells, and ſometimes in all of them together. With air, they diſcovered likewiſe an amazing quantity of hardened fæces. We cannot therefore entertain a doubt as to the nature of this diſeaſe. HEISTER, in his extenſive practice during the ſpace of ſix and forty years, never found air as the cauſe of tympanites in the cavity of the abdomen, till RUYSCH ſhewed him one caſe in which that cauſe was evident.

Agreeable to this idea of the proximate cauſe, the indications of cure muſt be,

1. To relieve the ſpaſm.

2. To reſtore the tone of the inteſtines.

Theſe

Theſe intentions may be anſwered by opiates, bitters, bark, and ſteel, with aromatics: but as in ſome caſes either worms, acrid bile, or viſcid mucus, which is the *materia verminoſa* of SAUVAGE, may contribute to the ſupport of the diſeaſe; theſe muſt be evacuated, and the beſt medicines for this purpoſe are, calomel, rhubarb, ſenna, ſquills, ſoluble tartar, and the foſſil alkali, which laſt may be made into pills with ſoap. Carminative clyſters muſt be frequently injected. For BOERHAAVE very judiciouſly remarks, if the bowels are cleanſed before they have loſt their tone by exceſſive diſtention, the diſeaſe is cured.

The cathartic may be calomel from two to five grains at night, to be carried off in the morning by rhubarb and ſoluble tartar, of each fifteen grains, with ten grains of either ginger or aromatic powder, made into a bolus with ſyrup of orange peel. Or at the commencement might not caſtor oil (ol. ricini) be tried with a probability of ſucceſs?

For the opiate we may take either of the following, as occaſion may require, to be repeated every night.

℞ Aq. Menth. un. 1. Sp. Ammon. comp. gtt. 20. Tinct. Opii, gtt. 15 ad gtt. 30. Sach. Alb. dr. 1. M. f. H. h. s. s.

℞ Aq. Menth. un. 1. Acet. Scillæ, dr. 1. Tinct. Opii, gtt. 15—30. M. f. H. h. s. s.

Twenty

Twenty drops of vitriolic tartar may be added to the opiate.

The aſtringent may be;

℞ Cinchon. Rad. Calam. Aromat. aa ℥ſs. Ferri Vitriolat. ʒj. Conſ. Roſ. ℥j. Syr. Cort. Aurant. q. s. M. f. Elect. c. c. M. N. M. bis die.

That is,

Peruvian bark and calamus aromaticus, of each half an ounce; ſalt of ſteel, one dram; conſerve of roſes, one ounce; ſyrup of orange peel, ſufficient for an electuary. Take the ſize of a nutmeg in the morning and at noon.

We find a practice recommended by Sauvage which merits attention on account of its ſingular effects in the caſes in which it has been tried.

That is, to foment with water, juſt above the freezing point, at the ſame time giving ice internally to condenſe the gas, or abſorb it if it be fixed air; and he particularly ſtates, that in the ſpecies of tympanites, which he denominates *ſpaſmodic*, this practice perfected a cure, with this remarkable circumſtance, that in both the caſes ſpecified a bilious diarrhœa, producing an abundant diſcharge of flatulence, was ultimately the means of removing the diſeaſe. This effect is rendered the more ſtriking by what he adds reſpecting the practice of Hippocrates, *triginta urceos aquæ frigidæ effundi juſſit*

ſupra corpus mulieris robuſtæ, quæ a ſumpto medicamine ventre intumuerat cum dolore, dyſpnœa, animi conſternatione, hinc vomitu ex aqua frigida nec dolor nec dyſpnœa remiſerant, quinquies mortua viſa fuerat; hac affuſione frigidæ ſublevata eſt, bilem copioſam dein ejecit, et vixit.

Here we have the ſame appearance of bile, as the ſtimulating cauſe of this ſpaſmodic affection in the alimentary canal.

HOFFMAN has left us ſix valuable caſes of tympanites.

The firſt occaſioned by worms, and cured by anthelmintics, by tanſy, wormſeed, gum ammoniac, aloes, rhubarb, and calomel.

The ſecond, occaſioned by indolence, improper food, and an ill-cured intermittent. This was cured by carminative clyſters, by moderate aperients, and by gentle tonics, which laſt were compoſed of balſam of amber, orange peel, zedoary, and Hoffmann's anodyne, in equal parts.

The third, occaſioned by *menorrhagia alba* being ſuddenly ſtopped by means of alum locally applied, and cured by moderate aperients, balſamic pills, and by what he calls his viſceral elixir, continued for four days. After which period for four days, ſhe ſat every evening one hour in a decoction of the aromatic herbs with laurel and juniper berries. By this proceſs the young lady diſcharged from the uterus a great quantity of glutinous and viſcid matter, the flatulent ſymptoms were

were removed, and ſhe was reſtored to health. Galen reports a caſe ſimilar to this, and many ſuch have been recorded.

The fourth was merely diſtenſion of the cæcum in a young man of a phlegmatic habit, of a ſedentary life, and accuſtomed to a groſs diet. He was cured by gentle evacuants, carminatives, and tonics, as in the two preceding caſes, with the aſſiſtance of a plaiſter to the ſide affected. This was made with Venice turpentine, Maſtich wax, and Peruvian balſam; and was renewed twice a week.

The fifth caſe was of a Jew, aged 60, who was reduced to a ſtate of debility by grief, which brought on hypochondriaſis. In theſe circumſtances, being expoſed at once to cold, vexation, and fatigue, he became tympanitic. As the caſe was tedious, he grew weary, changed his phyſician, and then took the following:

℞ Cinnab. Antimon. Diaph. aa ʒiij. Liq. vol. Cornu Cervi. Croci, Caſtorei, aa ʒj. M. c. ʒj. o. 4. h.

This aggravated his ſymptoms, and brought on at the fourth doſe a ſalivation, which continued for three weeks, and killed him.

The ſixth caſe was of a clergyman in Holland, aged 30, exceedingly ſtudious, ſedentary, and accuſtomed to a groſs diet, that is, to dried fleſh, fiſh, legumina, milk, and tea. This patient, at the end of three years intenſe application, became pale, emaciated,

emaciated, tympanic, and aſcitic. Hoffman being conſulted, put him upon a generous regimen; made him take exerciſe; and, *to cleanſe the firſt paſſages from viſcid mucus, which he conſidered as the occaſional cauſe of flatulence*, he ordered a mineral water, and twice a week gave balſamic and cathartic pills.

I ſhall relate one caſe more, which was reported by my old friend Dr. MONRO, and which may be ſeen in the Edinburgh Medical Obſervations.

Margaret Dog, aged 22, having a tertian ague, drank great quantities of brandy and pepper in warm ale, by which the intermittent was converted into continued fever. When this was removed, an irregular intermittent returned and continued more than ſeven months, till ſome doſes of the bark were given her, after which ſhe was attacked with ſharp pains in her loins and belly, attended by gripes, borborygmi, and moſt enormous ſwelling of the whole abdomen. This diſtention ſometimes roſe ſuddenly, and as ſuddenly ſubſided without evacuation of any kind, but always continued more than ordinary. When winter came ſhe was almoſt free from her complaints, but towards the advance of ſpring her pains and ſwelling again became exceedingly diſtreſſing, with dyſpnœa and hard protuberant balls in the ſides of the abdomen. She was coſtive, and the catamenia were irregular in the periods of their return. Her appetite was good: ſhe had no thirſt; her urine was in proportion to her drink, and ſhe had no ſwellings in her legs. Being admitted to the hoſpital, ſhe took a variety of medicines without relief. But at the end of two months during the menſtrual diſcharge, the diſtention leſſened. When this flux ceaſed, the ſwelling

increaſed again to ſuch a degree as to threaten the burſting of her ſkin.

June 25. When ſhe had menſtruated a ſecond time and this diſcharge had diſappeared, *borborygmi* were for the firſt time perceived ſince the original attack; and taking tinctura ſacra, (vinum aloes), the next morning ſhe paſſed ſome blood by ſtool. Here it muſt be noticed that ſhe had been ſubject to the hæmorrhoidal flux, but that this for a length of time had ceaſed to flow.

The two following days, whilſt ſhe continued her uſual medicines, aſſa fœtida, ſpirit of hartſhorn, ginger, and horſe-raddiſh, which had been before inert; ſhe had ſuch exploſions up and down, that none of the other patients would remain in the ſame room, nay, ſcarcely on the ſame floor with her. Her belly became ſoft; the diſtention leſſened continually; her flatulent diſcharge went on ſucceſsfully, and by the help of ſteel ſhe was ſoon ſtrong enough to return to ſervice, where ſhe worked hard, fared badly, and walked barefooted, without any return of her complaint.

They, who are well acquainted with ſpaſmodic affections, will not be ſurpriſed to ſee, as in the caſe before us, what confuſion the hæmorrhagic effort creates, when it occurs in weak and irritable habits. Many ſuch inſtances are produced by Dr. WHYTT, in his incomparable treatiſe on the diſeaſes of the nerves, and merit the attention of the ſtudent, particularly thoſe which appear in his fourth chapter on the retention of accuſtomed evacuation, ſuch as the menſes and hæmorrhoidal flux.

With reſpect to the *borborygmi*, I muſt remind the ſtudent

ſtudent of an axiom of HIPPOCRATES: *Dolores ex hypochondriis et tumores, ſi recentes ſunt, et ſine inflammatione, ſolvit borborygmus in hypochondrio excitatus et maxime exiens cum ſtercore, urina et flatu.*

Genus LXVI. *Phyſometra.*

A permanent elaſtic ſwelling in the hypogaſtrium, ariſing from flatulent diſtention of the womb.

This frequently deceives the barren female with the hope of pregnancy, till nature explains the myſtery, and her expectation vaniſhes in air.

Genus LXVII. *Anaſarca.*

Univerſal Dropſy.

SWELLING on the ſurface of the body, not elaſtic, but pitting by preſſure of the finger, and riſing ſlowly to its former fulneſs.

It is a preternatural collection of ſerous fluid in the cellular membrane, immediately under the ſkin, and uſually appears firſt in the lower extremities towards night, but diſperſes before the morning. The urine is diminiſhed in quantity. Thirſt in-

creaſes and becomes intenſe. Atrophy attends, and all the fat with the oily partion of the marrow is carried off by the abſorbents.

SECTION I.

OF THE CAUSES REMOTE AND PROXIMATE OF DROPSY.

A preternatural collection of ſerous fluid, whether in the cellular membrane, or in the cavities of the body, is cauſed by abſorption, falling ſhort of exhalation in theſe cells and cavities; and this effect may be produced either by increaſed effuſion from the exhalant arteries, or from diminiſhed action of the abſorbents. But as in dropſy the lymphatics and thoracic duct are much enlarged; it is clear, that abſorption is increaſed, although not in proportion to the exhalation, and that therefore the cauſe of dropſy is in the exhalants.

Increaſed effuſion from the exhalants may ariſe,

1. From their relaxation, which may be occaſioned by fevers, whether typhus or protracted intermittents; by continued grief; by exceſſive evacuations of any kind; by the ſeveral ſpecies of intemperance; by indolence and inactivity; or by drinking only ſtagnant water, as in Holland.

2. From

2. From ſuperabundance of ſerum in the blood, which may be occaſioned by all the above-mentioned cauſes; by a penurious diet; by profuſe hæmorrhage and repeated venæſection; by weakened powers of digeſtion, defective chilification, and diminiſhed energy of the lacteals; by interruption of the watery excretions, whether of urine, or of perſpiration; by jaundice, and perhaps by abſorption from a humid atmoſphere. It might be thought, that the ſuperabundant ſerum would more readily paſs by the kidneys, as aqueous fluids do in healthy ſubjects, than by the exhalant arteries. But when the ſtimulus of well *oxygenated blood* is wanting, as we ſee in pale, languid, and hydropic habits; the kidneys become torpid, their vital action ceaſes, and the quantity of urine is diminiſhed. This we have ſeen exemplified in the beautiful experiments of Hales, who produced an artificial dropſy in dogs, by pouring abundance of warm water into their arteries through a tube of ſuch a height, that the preſſure of the column equalled the force of the heart, yet none of the warm water paſſed through the kidneys.

3. From continued preſſure on the veins, as in pregnancy, obſtinate flatulence, and ſcirrhous tumors, increaſing the determination of blood to the exhalant arteries, in which caſes dropſy is merely ſymptomatic, for when the obſtruction is removed the dropſy ceaſes.

4. From the ſtimulus of inflammation. A blow on the teſticles produces inflammation, of which the conſequence may be dropſy of the tunica vaginalis. A child's brain inflames, and hydrocephalus enſues. Pleuritis frequently terminates in hydrothorax, and peritoneal inflammation in aſcites. It is in this way that cold water drank by dancers or by reapers, when heated by exerciſe, produces dropſy. Mr. CRUIKSHANK has often taken away fifty or ſixty pints of water from a patient, which had collected in the abdomen, in the few days the peritoneal inflammation laſted, during the uſual ſpecies of puerperal fever. He very properly remarks, that when the arteries of the part have once got a habit of increaſing their ſecretions, they commonly go on for a long time, or the lymphatics may be ſo altered by the inflammation, as not to abſorb in proportion to the diſcharge by the exhalants.

The proximate cauſe therefore of dropſy is not as Sydenham conceives, the ſerous fluid itſelf as collected in the cells, but diminiſhed tone in the ſyſtem, as more accurately ſtated by Dr. Cullen.

SECTION II.

OF THE INDICATIONS OF CURE IN ANASARCA.

FROM what has been delivered, it will follow, that our indications of cure may be,

1. To

1. *To evacuate the ſerous fluid already collected.*

2. *To reſtore tone to the ſyſtem in general, and thereby to the exhalants in particular.*

I. The firſt indication may be anſwered, by either ſcarification or by punctures, which certainly is the moſt obvious and expeditious method of evacuating the diſtended cells; and, ſuppoſing the ſtrength is not much impaired, may be reſorted to with ſafety. But where the conſtitution is greatly weakened by diſeaſe, even punctures are hazardous, and ſcarification would be dangerous in the extreme. Yet ſome caſes occur, in dropſical habits, where from debility no inflammation takes place after ſcarification, and therefore no mortification, but the wound continues to tranſmit water for many weeks. Should however the ſyſtem have ſufficient ſtrength to produce inflammation, but not to ſupport vital energy in the wounded part during the ſucceeding ſtages, gangrene muſt be the conſequence. If therefore, it ſhould be found neceſſary to draw off the water, it ſhould be certainly by punctures, and theſe ſhould not be too near together, that they may have the better chance of healing by the firſt intention.

The ſerous fluid, collected in the diſtended cells, may be evacuated by exciting the abſorbents to more vigorous action, which may be accompliſhed either by means of *frictions* and *preſſure*, or by *conſent*.

It is well known that *preſſure*, if urged beyond the point of eaſe, ſets the abſorbents of the part to work for the purpoſe of removing either the ſubſtance preſſing, or the part itſelf when preſſed. A leſs degree of preſſure produces thickening, and a greater terminates in ulceration. For this purpoſe, bandages may be uſefully applied, for they not only, as Dr. Cullen well obſerves, ſupport weak veſſels, but certainly promote abſorption. *Frictions* are no leſs efficacious, whether adminiſtered by a fleſh-bruſh or by the hand; and I remember the caſe of a gentleman who in two months was perfectly cured of œdematous ſwellings in his legs, by his daughter's gently ſtroking them with her hand for many hours every day, from the inſtep upwards. Muſcular exertion likewiſe has a good effect in preventing ſtagnation of the fluids.

The abſorbents may be excited to vigorous action by *conſent*. If the emunctories are violently ſtimulated, whether it be by emetics, cathartics, diuretics, or by diaphoretics, they will copiouſly pour forth aqueous fluids, and the abſorbents over the whole ſyſtem will go to work for the purpoſe of ſupplying them abundantly, and aſſiſting them to waſh away the offending matters from the body.

For an *emetic* we may give the following:

℞ Antimon. tartariſat. gr. iv. Merc. Vitriolat. gr. v.
M. f. Emet. mane ſumend.

That

That is,

Emetic tartar four grains; vitriolated mercury five grains, to be taken in the morning.

Or any of the firſt five preſcriptions in my Vade Mecum may be tried.

SYDENHAM recommends three handsfull of the inner bark of elder (ſambucus nigra) boiled in a quart of milk and water to one pint. Half a pint of this decoction is to be taken morning and evening every day till the cure is perfected. If this quantity does not both purge and vomit briſkly, it is of no uſe.

For a *cathartic* we may order calomel and rhubarb, calomel and jalap, calomel and ſquills, elaterium, ſcammony, gamboge, according to the ſtrength of the patient and the urgency of the caſe. Or, we may give calomel at night, to be purged off in the morning, either with jalap, or by ſenna. Or theſe cathartics may be combined in the ſubſequent forms.

℞ Calomel ℈ij Rhei ʒiij. Jalap ℈j. Gambogii ʒj. Syr. Simp. q. s. f. Pill. nº. 56. c. c. Pill. ij. m. et v.

That is,

Calomel two ſcruples; rhubarb three drams; jalap one ſcruple; gamboge a dram; ſyrup a ſufficient quantity to make fifty-ſix pills; of which take two morning and evening.

Or

Or with HOFFMAN we may give manna three ounces, ſenna and cream of tartar of each two drams, infuſed in water for one doſe.

Sydenham, to delicate people of irritable bowels, gave either an ounce of ſyrup of buckthorn every morning, or the following:

℞ Rad Jalap. Hermodactyl. aa ℥ſs.
Scammon. crud. ʒiij.
Sennæ ʒij.
Glycyrrhiz. Sem. Anis. Carui, aa ℥ſs.
Summit Abſinth. Fol. Salv. aa m. j.
Infunde frigide in ℔iij. Aq. vitæ vulgaris, et coletur tantummodo uſûs tempore. Capt. Cochlear. j. h. s. et ij. mane ſequenti, augendo vel minuendo doſin pro ratione operationis.

That is,

Jalap and hermodactyl of each half an ounce; ſcammony three drams; ſenna two ounces; liquorice rool, aniſe, and caraway ſeeds, of each half an ounce; wormwood tops and ſage leaves, of each one handful; common brandy three pints. Infuſe and ſtrain it as wanted. Take one ſpoonful at night and two in the morning.—Hermodactyl is now rejected as inert.

To the more robuſt he gave the following:

℞ Tamarind. ℥ſs.
Sennæ, ʒij.
Rhei, ʒiſs. Coq. in q. s. Aq. font. ad. ℥iij. in Colatur. diſſolv. Mann. Syr. Roſar. ſolut. aa. ℥j.

Syr.

Syr. è Spin. Cervin. ℥ſs.
Elect. è Suc. Roſar. ʒij. M. f. H.

That is,

Tamarinds half an ounce; ſenna two drams; rhubarb a dram and an half; boil in water to three ounces and ſtrain. In this diſſolve manna and ſolutive ſyrup of roſes of each one ounce; ſyrup of buckthorn half an ounce; electuary of roſe juice two drams for one doſe.

Electuary of roſe juice not being found among the officinal preparations of the preſent day, ſolutive ſyrup of roſes may ſupply its place.

The obſervations of Sydenham reſpecting the uſe of cathartics in dropſy merit our attention.

1. In dropſies, when the intention is to evacuate ſerous fluids, cathartics, which are ſlow in operation, haraſs the ſyſtem to no purpoſe. To be uſeful they muſt be hydragogue and paſs the inteſtines ſpeedily. If they are too violent, opium will eaſily reſtrain them.

2. They muſt be repeated daily, unleſs a day of reſt is abſolutely needful, becauſe by intermiſſions the water would collect again.

3. When the bowels are not readily moved by mild cathartics, the more violent muſt not be given alone, but muſt be added in ſmall quantities to quicken the operation of the former. In conſider-

able

able doſes they deceive our expectations, and excite a tumult in the ſyſtem.

4. The peculiar habit and conſtitution of the patient muſt be conſulted, becauſe the ſame cathartics are not ſuitable for all.

Sydenham relates of himſelf, that when he was a young practitioner, having ſpeedily cured his firſt patient of a dropſy, by ſyrup of buckthorn, he thought he was poſſeſſed of a ſpecific; but, unfortunately perſevering too long in the uſe of this, when in the next caſe of dropſy it gave no relief, he had the mortification to find himſelf diſmiſſed by the wealthy dame, who was afterwards cured by a more diſcreet phyſician.

Both emetics and cathartics, if draſtic, are improper in irritable habits. They weaken the ſyſtem and increaſe the proximate cauſe of the diſeaſe. In ſuch conſtitutions therefore, if ſerous fluids are to be evacuated, recourſe muſt be had to diuretics.

For *diuretics* we may take our choice out of four orders, according to the nature of the caſe and conſtitution of the patient. We have among the *diluents*, water and whey. Among the *ſtimulants* garlic, ſquills, broomtops, juniper, meadow ſaffron, æther, and cantharides. Among the *refrigerants*, tartar and nitre. And for a *ſedative*, the fox-glove (*digitalis*).

Sydenham placed his chief dependance on the lixivial ſalts, which he conſidered as the moſt efficacious

cacious of all the diuretics. He thought it a matter of indifference from what aſhes the vegetable alkali was taken, yet he himſelf generally ordered the aſhes of the broom (*geniſta*), which were after his time regarded as a ſpecific, and rendered famous by the cure of mareſchal SAXE, when he had been twice tapped. Sydenham commonly ordered a pound of theſe aſhes to be infuſed in two quarts of Rheniſh wine; but cyder is equally as good. Of this filtered ſolution he gave four ounces three times a day, and found it efficacious in many caſes which had been regarded as incurable. This would be much improved by one ounce of iron filings.

HOFFMANN depended principally on ſquills and nitre. Of the former he ſpeaks in the higheſt terms of approbation, yet not more than it deſerves. His form was this:

℞ Rad. Vincetox. ℈ſs.
Scillæ, Nitri, aa gr. iij. M. f. Pulv.

That is,

The root of the aſclepias vincetoxicum ten grains, with ſquills and nitre of each three grains. This may be taken three times a day, gradually increaſing the doſe.

Dr. GREGORY, who as a practitioner ranks among the firſt in Europe, treads nearly in the ſame ſteps with Hoffmann, and commonly orders two grains of ſquills, made into a pill with crumbs of bread

bread and gum arabic. To be taken in the morning and at noon.

℞ Pulv. Rad. Scill. gr. 30. Mic. Panis Mucil. Gum. Arab. aa q. s. ut fiant Pill. 15. Quarum capiat j. Mane et Meridie.

With this he gives a mercurial pill every night.

Diuretics may be uſefully combined with either *emetics* or *cathartics*, or, which amounts to the ſame thing, the doſe of the *diuretic* may be ſo increaſed as to act either as an emetic or catharthic. Sir John Pringle uſed to give the following:

℞ Jalap gr. xv. Nitri. gr. viij. Simul Tritis ad. Rad. Scillæ, recent gr. viij.—xij. Syr. Simp. q. s. M. f. Bol. m. s. et perbiduum repetend. interpoſito dein uno die repetatur.

That is,

Jalap fifteen grains; nitre eight grains; grind theſe together, and add freſh ſquills from eight to twelve grains; ſimple ſyrup ſufficient for a bolus. To be taken in the mornings for two days; then, reſting a day, repeat.

Dr. Whytt was very fond of tartariſed kali, which he gave in doſes of about half an ounce: but Dr. Home increaſed his doſes of tartar from half an ounce as far as two ounces, and then quitted it for ſome other diuretic.

The phyſician who has made the moſt accurate experiments in the cure of dropſy, is Dr. Ferriar.

In his medical hiſtories we find, that of 43 patients, 33 were cured by cream of tartar, whereas out of 29 caſes, only 11 were cured by *digitalis*.

Dr. FERRIAR gradually increaſes his doſe of tartar from two drams to twelve, and when this loſes its effect, he quickens the operation by a grain or two of gamboge, reducing the tartar to four drams. When the evacuations, by urine and by ſtool, are profuſe, he ſupports the ſtrength by wine; or if a reſpite is required, he omits the tartar for a day and interpoſes tonics. When a change of medicines is required; or when a diarrhœa prevents the exhibition of tartar; he gives digitalis gr. 1—4, with a doſe of æther and about twenty drops of laudanum, or calomel and ſquills may be taken every night in this form.

℞ Pulv. Scill. gr. 3. Calomel gr. 1—4. Sapon. Hiſpan. gr. 10. Syr. q. s. f. Bol. h. s. s.

Dr. Ferriar very judiciouſly remarks, that the more briſk the operation of the tartar as a cathartic, the more copious is the flow of urine.

After what has been delivered, it may be thought ſuperfluous to add more reſpecting diuretics, or of diuretics united with cathartics; but every practitioner is ready to acknowledge, that in protracted caſes a change of medicine is frequently required.

Dr. Duncan in his valuable commentaries tranſmits the following:

℞ Reſin.

℞ Reſin. Jalap. v. o. ſolut. gr. 10.
Sal. Nitri ℈j.
Sal. Succin. vol. gr. 10.
Sir. Simp. Aq. Cinnam. aa ℥ſs M. m. s. et alternis diebus repet.

That is,

Reſin of Jalap ten grains, diſſolved in yolk of egg; nitre one ſcruple; volatile ſalt of amber ten grains; ſimple ſyrup and cinnamon water, of each half an ounce; to be taken every morning. This proves a powerful diuretic, when the ſimple diuretics fail.

To this gentleman we are indebted for introducing to our notice the lactuca ſcariola, the extract of which Dr. COLLIN of Vienna has given with ſucceſs, in the doſe of from two grains to five, four times a day. This he informs us evacuates from one to twelve pints of urine during the night, and he adds that it is a mild aperient and grateful to the ſtomach.

Digitalis has been ſtrongly recommended by Dr. WITHERING, who had given it in 163 caſes, and in many of them with manifeſt advantage; but as in the hands of Dr. Ferriar it claims only eleven cures out of twenty-nine caſes, in which it was fairly tried, and in the extenſive practice of Dr. LETTSOM it never perfected one cure; we have little reaſon to expect great things from it in dropſy. Yet as it ſinks the pulſe in a degree unobſerved in any other medicine, I wonder that it never has been

been tried in *pleuritis*. A conſtant nauſea might be kept up with it for days, and ſhould it prove either emetic or cathartic, no danger could be apprehended from ſuch operation.

Diaphoretics have been ſometimes uſeful, and exerciſe, promoting perſpiration, ſeldom fails to produce a good effect, for which reaſon Hippocrates particularly recommends hard labour. Dampier in his voyages relates, that one of his men having a dropſy, was buried up to the neck in hot ſand, which brought on ſtrong ſweat and cured him.

Dr. MARRYAT ſometimes purſued this plan. He gave opium and ipecacuanha, of each four grains, with vitriolated mercury two grains, and made his patient ſleep between the blankets.

II. The ſecond indication may be anſwered by a generous diet, good air and exerciſe, with bitter aromatics, bark and ſteel.

Such is the efficacy of a generous diet, that I have known poor people cured by this alone. In theſe caſes the ſtimulus of animal food and wine is new, and therefore has the ſame tonic power on them as bark, ſteel, and opium, have on the exhauſted fibres of the rich.

Nothing, however, contributes more to vital energy, or more powerfully excites to action, the whole of the abſorbent ſyſtem, than pure air with exerciſe.

Yet medicines are not to be neglected. For when the ſerous fluids are evacuted, we muſt haſten to every means to invigorate the ſyſtem, or they will ſoon collect again. Sydenham, as a tonic, recommended a diet drink of bitter and aromatic herbs infuſed in either ſtrong ale or wine. Theſe were horſe-radiſh, wormwood, garden ſcurvy-graſs, ſage, leſſer centaury, and broom-tops. To them he ſometimes added nutmeg and orange-peel. The ſame intention may be anſwered by the following, or by ſomething ſimilar.

℞ Rad. Columb. dr. 4.
Quaſſiæ. Caſſiæ Lign. aa dr. 1.
Aq. fervent. lib. 1. Macera per noctem et Cola. Colaturæ, adde Eſſ. Lignor. dr. 4. f. M. c. c. un. 4. bis vel ter in die.

Our principal dependance muſt be on *ſteel*, as the moſt powerful of tonics. This Sydenham, this Boerhaave, Hoffmann, and all ſubſequent profeſſors, have uniformly recommended in the ſtrongeſt terms for dropſical complaints: and with this Peruvian bark may be profitably joined. Boerhaave combined them in this form:

℞ Limat. Ferri. Cinchon. Cort. Winteran. aa ℥ij. Rhei exſic. dr. 4. Vin. Rhenani generoſiſſimi ℔ 4. f. Infuſ. c. c. ℥ij. ter in die.

That is,

Iron filings, Peruvian bark, Winter's bark, of each two

ounces; ſtrong Rheniſh wine, two pints. Take two ounces of this infuſion three times a day.

If the form of an electuary is preferred, we may ſubſtitute the following:

℞ Cinchon. ℥j. Limat. ferri. ʒiv. Mucil. Gum. Arab. q. s. f. Elect. c. c: m. N. M. bis in die.

That is,

Peruvian Bark one ounce; iron filings four ſcruples; mucilage of gum arabic, ſufficient to make an electuary. Take the ſize of a nutmeg twice a day.

The Formulæ 77, 78, 82, of my Phyſician's Vade Mecum, are proper in this diſeaſe.

One obſervation more will conclude what I had to ſay of dropſy. It has been uſual to limit the quantity of drink, and ſometimes a total abſtinence has been required by thoſe, who, with Sydenham, conſidered the collection of watery fluids as the proximate cauſe of this diſeaſe; but ſuch reſtraint is not agreeable to reaſon, nor is it warranted by careful obſervation. Nature pleads powerfully for diluting liquids, and many caſes have been produced of dropſy cured by gratifying this importunate deſire, whilſt no inſtances appear of injury received by moderate indulgence. Even Hoffmann, although he forbade his patients to indulge their thirſt, yet, particularly orders that all diuretics ſhall be plentifully diluted

either with whey, with parſley water, or with old hock.

It muſt be acknowledged, that a total abſtinence from liquids ſets the abſorbents to work, and thus it was, that the two aſcitic patients, mentioned by Dr. MEAD, were cured. But then it muſt be conſidered, that the ſerous fluids collected in dropſical caſes become frequently ſo viſcid and tenacious as to flow out with difficulty, when the patient has been tapped. In ſuch caſes, therefore, plenty of diluting liquids muſt expedite the cure. Thus it was with him whoſe caſe Sir JOHN FLOYER has reported. This man, when given over by his phyſicians, having obtained leave to quench his thirſt, was, at the end of five or ſix hours, ſatisfied that he had drank enough. A cold ſweat came over him, and his friends laid him in bed for dead. But in the ſpace of half an hour his urine began to flow, and flowed inceſſantly, till he had evacuated one half of what he drank. He opened his eyes and called for wine, drank it and went to ſleep again. But whilſt he ſlept, the flux of urine was inceſſant; he had a copious perſpiration, and a diſcharge of aqueous fluid from the rectum. In leſs than a week this man drinking freely, was, without any other medicine, reſtored to health.

Genus

Genus LXVIII. *Hydrocephalus externus.*

DISTINGUISHED by an external ſwelling of the head, ſoft and not elaſtic. It is the diſeaſe of infants.

As the water is collected between the ſkull and its integuments, the cure is obvious, for it may be eaſily performed, either by puncture, by ſcarification, or by cauſtics.

Hydrocephalus internus, although, in deference to the authority of my venerable maſter, already included in the claſs of *neuroſes*, belongs rather to the *cachexiæ*. My reaſons for this opinion are the following:

1. Becauſe the diſeaſe conſiſts of a preternatural collection of ſerous fluids in the ventricles of the brain, produced by diſproportionate action between the exhalants and abſorbents. Therefore, whether it ariſe from exceſs of exhalation or from deficient abſorption, it is certainly an affection of the lymphatic ſyſtem.

2. Becauſe the laſſitude, pain in the head, drowſineſs, and dilated pupils, which characterize hydrocephalus internus, although nervous affections, are not the diſeaſe itſelf, but merely ſymptoms.

3. Becauſe this diſeaſe is cured by medicines, which are commonly reſorted to in the cachexiæ, and not in the neuroſes.

Genus LXIX. *Hydrorachitis.*

A dropſical tumour in new born infants, commonly on the lumbar vertebræ, ſoft, ſmall, and with a dilatation of the vertebra.

It is not however abſolutely confined to the lumbar vertebræ, for it has been found both in the dorſal vertebræ, and in the ſacrum.

The lymph in this tumour is derived from the fourth ventricle of the brain, where it conſtituted *hydrocephalus internus*, and from thence deſcending between the tunica arachnoides and the vagina of the ſpinal marrow, which is a prolongation of the dura mater, it diſtends this membrane, and with it penetrates the vertebra. This in new born infants is not difficult, becauſe the annular part is compoſed of two diſtinct bones united poſteriorly by a ligament. From this effect, Ruyſch, after the Arabians, calls the diſeaſe in queſtion *ſpina biſida*; but Morgagni, with greater propriety, has named it, from two Greek expreſſions implying water in the ſpine, *hydrorachitis*.

This dreadful diſeaſe has hitherto eluded all the reſources of art, for in vain the medicines uſed in dropſy

dropſy have been reſorted to, and to puncture the tumour is inevitable death. Hence it is, that infants, attacked by it, whether before or ſoon after their birth, ſoon come to the period of their exiſtence.

Yet amidſt multitudes, who have lived for a few days only in this terrible diſeaſe, my friend M. GIMBERNAT attended one, a lovely youth, who completed his fifteenth year, before he died. The tumour, which was on the ſuperior part of the ſacrum, was at his birth no bigger than a hazel nut, but by degrees it grew to the ſize of a hen's egg, when it became difficult to avoid compreſſion. At this period he applied to Mr. Gimbernat, who obſerving that when the tumour was compreſſed, whether by accident or by deſign, the boy firſt complained of head-ach, then felt vertigo, after that became *lethargic*, and ſo continued till the preſſure was removed; he contrived an inſtrument, which at once protected the tumour from external injury, and by means of a ſpring made ſuch preſſure on the part as the boy was able to bear without either pain or lethargy. The deſign of this preſſure was, to promote abſorption, which effect it produced to ſuch a degree, that the tumour decreaſed in ſize, and the fixed pain in the centre of his head, of which he before complained, had left him.

Thus relieved, the boy neglected to call from time to time upon his ſurgeon till the leather covering of

the inſtrument was worn out, and the iron circle had ulcerated the tumour; in conſequence of which, the lymph was ſuddenly diſcharged.

M. GIMBERNAT and his ſon, from whom I have this relation, were inſtantly called in. They found him ſenſeleſs, with a very quick pulſe, and violent convulſions, particularly in his lower extremities. They obſerved likewiſe, that a very conſiderable quantity of a limpid fluid, exceedingly ſaline, had been diſcharged, and was then flowing to a moſt aſtoniſhing degree.

They applied ſtrong ſticking plaſter to the opening of the tumour, and no ſooner was the communication with the external air cut off, than the patient began gradually to regain his ſenſes; but the convulſions, chiefly of the lower extremities, ſtill continued, and he complained inceſſantly of excruciating pain in the interior of his head.

In a few hours the quantity of lymph collected in the tumour was ſo great, that the ſticking plaſter, although aſſiſted by fomentations with calcined alum, were carried off.

No ſooner was the communication renewed between the atmoſpheric air and the brain through the vertebral canal, than *lethargy* returned and continued, till freſh plaſters were applied, when, as before, the excruciating pain in the interior of his head produced inceſſant lamentation, till at the end of two days he died.

On

On diſſection, the bones of the head, by a preternatural accumulation of blood, were found livid and much diſcoloured: the dura and pia mater were much inflamed, and the fourth ventricle was ſo much dilated as eaſily to admit the introduction of the thumb, but the other ventricles were in their natural condition.

The tumour was ſituated on the poſterior part of the ſacrum through an opening, which aroſe from defect of oſſification, and its cavity communicated with the fourth ventricle through the vertebral canal.

All theſe parts are to be ſeen in M. Gimbernat's muſeum.

From this beautiful caſe we may ſee clearly the nature of the diſeaſe in queſtion, and the means by which we may attempt the cure with ſome proſpect of ſucceſs. Theſe are the exhibition of ſuch medicines as are uſually recommended in ſimple caſes of hydrocephalus internus and external preſſure, gradually and moſt cautiouſly produced with a view of exciting the abſorbents to more vigorous action. If theſe fail to reduce the tumour, the caſe is deſperate, and admits of no relief.

Genus LXX. *Hydrothorax.*

Dropſy in the Cheſt.

The ſymptoms are difficulty of breathing, paleneſs of face, œdematous ſwelling of the feet, ſcarcity of urine, impatience of an horizontal poſition, ſudden ſtarting from ſleep with palpitation, fluctuation of water in the cheſt.

Sometimes there is cough, numbneſs in the arms, intermitting pulſe, thirſt, and feveriſhneſs.

This collection of ſerous fluids may be either in the cavities of the thorax, in the pericardium, in the cellular texture of the lungs, which ſurrounds the bronchiæ, or in all of theſe at the ſame time, but between theſe ſeveral caſes the diſcriminating ſymptoms have not been aſcertained.

It acknowledges the ſame cauſes with anaſarca; but the moſt uſual ſource, from which it is derived, is the ſudden application of cold when the body has been much heated by muſcular exertion. Hence it is that reapers, hence that young people after dancing, if they drink freely of cold lemonade or water, are apt to bring on a dropſy of the cheſt. Boerhaave particularly ſtates that in Holland, where the wherries, when the bell rings, are punctual in their departure to a moment, paſſengers who arrive too late, frequently run to overtake the boat,

boat, heat themſelves exceedingly, and, bathed in ſweat, enter the veſſel, where they take their ſeat, expoſed for hours to the ſtroke of the cold winter's blaſt. The conſequence of this indiſcretion, he remarks, is moſt often aſthma, which terminates in dropſy of the cheſt.

The indications of cure are the ſame as for *anaſarca*. Dr. FERRIAR informs us, that among his 43 hydropic patients, of whom he cured 33 with cream of tartar, ſome had *hydrothorax*. There can be no doubt, that if the abſorbents are excited to vigorous action by conſent, and if the tone of the ſyſtem is reſtored, hydrothorax, like every other ſpecies of dropſy, may be effectually relieved. This therefore ſhould be attempted firſt. And, when we call to mind the experiments of Dr. Muſgrave, already mentioned and recorded in the Philoſophical Tranſactions for 1683, we can have no reaſon to deſpair. Should however medicines fail, we may ſafely have recourſe to tapping; and the paracenteſis, although it cannot remove the cauſe of this diſeaſe, may at leaſt procure a reſpite, and give both nature and the phyſician time to exert new efforts. This operation, recommended by Hippocrates, although not infallible, is frequently attended with ſucceſs. The inhalation of *vital air* has been found of the greateſt ſervice in this diſeaſe.

Genus

Genus LXXI. *Aſcites.*

Dropſical Swelling of the Abdomen.

The ſwelling is tenſe, ſcarcely elaſtic, but fluctuating.

When conſiderable it has thirſt, ſcarcity of urine, and ſome degree of fever.

SECTION I.

OF THE CAUSES OF ASCITES.

It has the ſame cauſes, both proximate and remote, with anaſarca; but the moſt uſual ſource from which it is derived, is morbid affection of the liver, occaſioned either by the ſudden application of cold, when the body has been heated, as I remarked in hydrothorax; by indolence and a ſedentary life; by the abuſe of acids; by the unſeaſonable exhibition of powerful aſtringents in hæmorrhages and intermittent fevers, or by hard drinking. In caſes of aſcites, it is not uncommon to obſerve the ſpleen, the pancreas, and the meſenteric glands, as well as the liver, enlarged and ſcirrhous; but in the opinion of Hoffmann, the former are affected merely

merely by conſent with the latter, which is the viſcus firſt injured by intemperance.

SAUVAGE has no leſs than 29 ſpecies of aſcites, which Dr. CULLEN has very properly reduced to two, aſcites *abdominalis* and aſcites *ſaccatus*.

1. Aſcites *abdominalis* with uniform ſwelling of the abdomen and evident fluctuation, preceded commonly by ſymptoms of relaxation and debility.

2. Aſcites *ſaccatus* with ſwelling of the abdomen, at firſt partial, and leſs evident fluctuation, not preceded by paleneſs, reſtleſſneſs, loſs of appetite, or other ſymptoms of relaxation and debility, nor attended by either much thirſt or paucity of urine. It is conſidered as incurable in this ſpecies; the ſack is generally formed by a collection of *hydatides*.

Hydatides are membranaceous bags, not organic, but ſoluble in boiling water. They are produced by the *tænia hydatigena* for its habitation, and each veſicle is filled with lymph. Van Swieten, Comment. § 112, § 1226.

SECTION II.

OF THE INDICATIONS OF CURE IN ASCITES.

THE indications of cure in *aſcites abdominalis* are the ſame as for *anaſarca*.

In this diſeaſe the Batavian HIPPOCRATES, tread-

ing in the footſteps of our Sydenham, more particularly recommends *emetics*, to ſhake the whole frame, to open obſtructed veſſels, to render their contents more fluid, and to prevent ſtagnation. *Per vomitus ſolvuntur cuncta tenacia, concutiuntur obſtructa expelluntur ſtagnantia, unde mirabiliter in hoc morbo proſunt*, § 1244. He adds, they muſt be ſtrong, and often repeated at ſhort intervals. With this view Sydenham gave crocus metallorum; but any other antimonial calx, in ſufficient quantity, is equally as good.

Yet in either debilitated or very irritable habits he, with the greateſt propriety, forbids the uſe of draſtic evacuants, and recommends tonics with gentle diuretics. Hoffmann agrees with him in ſentiments.

No advice can be more judicious, than that of the late Dr. FOTHERGILL. Strong purgatives, ſays he, weaken and deſtroy the tone of the abſorbent ſyſtem. Squills, alkalines, neutral ſalts, and terebinthinate balſams, ſhould be firſt tried; then, if need be, tap, and after that give ſquills, chalybeates, bitters, with exerciſe and a generous diet. Under this management he pleads for early tapping. In this he perfectly agrees with BOERHAAVE, who in recent caſes of aſcites ſays *ſtatim inſtituenda paracenteſis*. It ſometimes happens, that nature, without the aſſiſtance of art, takes this method to relieve herſelf. SCHENEKIUS in his medical obſervations produces

produces many examples of ſuch an effort, by which the navel gave an outlet to the waters, and thus perfected a cure. Other inſtances are related by Benevoli and Foreſtus. But the moſt curious caſe is reported by Dr. MEAD, in his Monita Medica. The Doctor, who had ſeen one lady tapped ſixty-ſix times before ſhe ſunk into the arms of death, was conſulted by another, whom, as being in a ſtate of extreme debility, he was afraid to tap. She was ſo big, that he pronounced her caſe incurable; yet nature came to her relief, and made two perforations near the navel, by the firſt of which ſhe paſſed twelve pounds of water, and by the ſecond, the next day, ſix pounds more. The cure was perfected, and nature healed the wounds.

This proceſs is beautifully explained by JOHN HUNTER in his ineſtimable treatiſe on inflammation, wherein he ſhews that, according to an eſtabliſhed law of the animal economy, ſuch apertures are produced by the abſorbents, when they are drawn into action by the ſtimulus of preſſure.

It ſometimes happens, that inſtead of water in the cavity of the abdomen, there is only a gelatinous matter. In this caſe the paracenteſis gives no relief, becauſe it comes too late, and the only reſource is in emetics, which by agitation and concuſſion waſh away tenacious lymph from the mouths of the abſorbents, and powerfully, as already ſtated, increaſe their action by conſent.

SECTION III.

CASES OF ASCITES.

Sydenham has left the record of a moſt intereſting caſe, which exhibits to our view the wonderful operation of emetics.

A poor woman, aged 55, being ſhut up three years in priſon, after ſhe had ſuffered much by a protracted intermittent, and being expoſed to cold, became aſcitic to ſuch a degree, that her belly was bigger than Sydenham had ever ſeen. In this ſituation he began with antimonial emetics, which he repeated every morning for three days, then every other day till ſhe had taken ſix emetics. When ſhe began this courſe, her urine was totally ſuppreſſed, but increaſed gradually in proportion to the number of emetics, and towards the concluſion of this proceſs water flowed freely by every outlet of the body. In fourteen days ſhe meaſured three feet leſs than ſhe had done before, and could lie down in bed to ſleep without fear of ſuffocation. When he thought it no longer ſafe to haraſs her ſtomach with emetics, he proceeded with cathartics in proportion to her ſtrength. And here he had occaſion to obſerve, that even on the days of reſpite, when ſhe took no cathartic, ſhe ſometimes evacuated a great quantity of water by ſtool, and towards the cloſe, by the urinary

urinary ducts, even to the quantity of a gallon, although he allowed her only two pints a day, so that all the passages were open. But, what is still more remarkable is, that the menstrual flux, which had disappeared for many years, returned and flowed abundantly.

The consequence of all these evacuations was *hysteria* with *tympanites*, and *tussis ferina:* but all distressing symptoms were effectually relieved by resting from cathartics, and by syrup of white poppies in the dose of one ounce and an half given every night for four nights.

Hoffmann has enriched our treasure with nine curious cases of dropsy, but among these we have only one ascitic patient, a young man of twenty years of age. This youth, accustomed to a sedentary life, had from his infancy been troubled with swelling both of the feet and the abdomen, which were attributed to the repulsion of the itch. With a view of improving his health he used strong exercise, and when extremely heated, he drank a great quantity of cold liquids, which brought on cough, difficulty of breathing, and dropsical swellings, which terminated in death. When his body was dissected water was discovered in the abdomen, thorax, and pericardium. The duplicature of the peritonæum was covered with numerous hydatides. The liver and spleen were enlarged and hardened, and almost destitute of blood. The bile was small in quantity, brown and compact as glue.

The following case will be found very interesting.

Sarah Kimber, aged eight years, living at No. 10, Wood-ſtreet, Spa-place, Clerkenwell, with the uſual ſymptoms of dropſy, had her belly very much diſtended, and upon preſſure there was an evident fluctuation of water. This diſorder had ſubſiſted more than two years, and, notwithſtanding the uſe of a variety of remedies, it went on conſtantly increaſing, till her phyſician (Dr. Myers) gave up all hopes of her ſurviving many days; in this ſtage of the diſeaſe, my ingenious friend Dr. THORNTON was conſulted. He began with an emetic, and the ſubſequent day he gave a briſk carthartic of rhubarb with a neutral ſalt. He applied a *tight bandage* of flannel about the abdomen, and ordered the ſtrong mercurial ointment to be rubbed in each evening. He put her upon milk diet, with onion and toaſted bread for ſupper. In a few days the emetic was repeated, and when the mouth became ſore, ſhe had for two mornings briſk ſaline cathartics. He then gave bark and myrrh in port wine twice a day, aſſiſted in their operation by the inhalation of *vital air*. Theſe powerful tonics were accompanied with *ſwinging* until nauſea or ſickneſs was produced, and at night ſhe took half a grain of *opium*. At the end of only ten days, in conſequence of this *new mode* of treatment, the belly was diminiſhed more than one half, her ſpirits revived, and her friends remarked of her, that "ſhe ſkipped about the houſe as briſk as a bee." After fifteen days, emetics at intervals, with ſaline cathartics, and the mercurial ointment, were repeated; the opium pill at night, and the tight bandage were ſtill continued. Chalybeates were then thrown in, and the emetics with cathartics were employed at more diſtant intervals, in conſequence of which her complexion aſſumed the roſy bluſh of health; ſhe was now able to vie with her companions in running, and the recurrence of the diſeaſe was prevented.

Genus

Genus LXXII. *Hydrometra.*

Dropſy of the Womb.

THE ſymptoms are a ſwelling in the hypogaſtrium without ſuppreſſion of urine or pregnancy, attended with fluctuation, and having ſome reſemblance to the gravid uterus.

To theſe ſymptoms Sauvage has added borborygmi, dyſpnœa, uncommon fœtor of the ſtools, obſtructed catamenia, pain in the abdomen and the loins, nocturnal pollution, rigor, febrile ſymptoms, ſoftneſs and flaccidity of the breaſts, and difficulty in either walking or bending the body forwards.

This affection of the womb is ſometimes the conſequence of abortion, when the placenta is left behind, for this may degenerate into a congeries of hydatides: but the unmarried and the barren are more ſubject to it than the parturient.

With regard to the treatment, BOERHAAVE obſerves, *curabilis laxatione oris uterini per fomenta, vapores, uterina adhibita.* For the fomentation he recommends the aromatic herbs, and as uterine ſtimulants he mentions the uſual emmenagogues, aloes, myrrh, briony, gum ammoniac, ſagapenum, opopanax, galbanum, and aſa fœtida.

When, inſtead of the uterus, the ovaries are attacked by dropſy, it is difficult to ſettle the diagnoſis, and the diſeaſe is conſidered as incurable: *difficulter cognoſcitur, curatur vero nunquam.* Boerhaave, Aphor. § 1223.

Genus LXXIII. *Hydrocele.*

Dropſy of the Scrotum.

A tumour of the ſcrotum increaſing ſlowly without pain; fluctuating and generally pellucid.

The ſerous fluids, which cauſe this tumour, may be contained either in the cellular tunic, as in caſes of anaſarca; in the hernial ſack, produced from the peritonæum, when hernia and either tympanite or aſcites have preceded; or in the vaginal tunic of the teſticle, which is the moſt common form of hydrocele.

In the firſt caſe, the diſeaſe may be treated as anaſarca. In the ſecond caſe the tympanites or the aſcites muſt be cured, and then the hernia muſt be reduced.

In the third caſe, if recent, Boerhaave and his commentator recommend cathartics, as in anaſarca and aſcites, or diſcutient cataplaſms and fomentations, for which purpoſe they propoſe the following:

℞ Rad.

℞ Rad. Bryon. Jalap. Fol. Rutæ, Abſinth. Cinaræ Hortens. Flor. Melilot. Centaur. min. Bulb. Cepar. Allior. aa unc. 2. Aq. font. q. s. ut fiat Cataplaſma, ſub finem, adde Galbani v. o. s. unc. 2. Farin. Lini. unc. 1. Ol. Lini. Sab. Ammon. aa dr 4. M. f. Cataplaſma diſcutiens teſticulis applicandum.

℞ Sapon. Venet. dr. 4. Sp. Vini Theriacal. un. 12. M. pro fomento cum laneis pannis applicando.

℞ Sal. Marin. Decrepit. Siccissimi, Calidi. tenuiſſime triti. q. s. intra lintea conſuta applicetur renovando ſimul ac maduerit.

℞ Benzoin. Olibani, Sarcocollæ, Reſin Guaiac. aa dr. 4. Camphor. dr. ½. Maſtich. un. 1. Sal. Ammon. ſcr. 2. M. f. Pulv. Cujus incenſi vapor excipiatur nudo ſcroto, dein panni lanei fumo hoc vaporoſi, calidi, ſuper applicantur.

A ſuſpenſory truſs by preſſing the ſcrotum cloſely to the os pubis promotes abſorption.

Should theſe applications fail, the hydrocele muſt be tapped. This operation frequently effects a cure, ſometimes at the firſt tapping, often by a repetition. But ſhould this fail, the patient, if young, may ſubmit to the radical cure. For this purpoſe, the teſticle may be laid open, or red wine and water may be injected, which will bring on adheſive inflammation, and the parts will heal.

My reſpected friend, Mr. GIMBERNAT of Ma-

drid, has a method peculiar to himſelf, which he aſſured me, in his extenſive practice had never failed to cure with little confinement to the patient. He paſſes a ſilver trocar, of the ſize of a gooſe quill, through the ſcrotum, and having withdrawn the perforator, he leaves his perforated canula ſuſpended in the ſcrotum. When the water is evacuated, he blows in air twice a day, and, leaving it for ten minutes in the ſcrotum, he then preſſes it out again. In about ten days the parts unite by the adheſive inflammation, and he removes the canula. The patient is at liberty, all the time required for this operation, to walk about his room.

Genus LXXIV. *Phyſconia.*

TUMOUR occupying the abdomen, increaſing ſlowly, and neither ſonorous, nor fluctuating, nor induced by pregnancy.

SAUVAGE enumerates no leſs than 15 ſpecies of phyſconia, the denomination of which he derived from anatomical inſpection, and for which he refers either to his own obſervations or to thoſe of the moſt expert pathologiſts. Theſe are, 1. Phyſconia *hepatica.* 2. Phyſconia *ſplenica.* 3. Phyſconia *renalis.* 4. Phyſconia *uterina.* 5. Phyſconia *ab ovario.* 6. Phyſconia *meſenterica.* 7. Phyſconia *inteſtinalis.*

inteſtinalis. 8. Phyſconia *omentalis.* 9. Phyſconia *polyſplachna.* 10. Phyſconia *viſceralis.* 11. Phyſconia *externa lupialis.* 12. Phyſconia externa *ſcirrhodea.* 13. Phyſconia externa *hydatidoſa.* 14. Phyſconia *ab adipe ſubcutaneo.* 15. Phyſconia *ab excreſcentia.*

Of theſe tumours ſome were ſimple, as he expreſsly ſtates, a. *Hydatidoſa.* b. *Strumoſa.* c. *Scirhodea.* d. *Sarcomica.* e. *Steatomatoſa.* f. *fungoſa,* or compound tumours; but unfortunately we have no pathognomic ſymptoms to diſtinguiſh the ſpecies from each other, nor can we aſcertain preciſely the nature and the ſeat of the diſorder, till theſe circumſtances are diſcovered by the knife.

Dr. CULLEN has adopted all theſe ſpecies from Sauvage; but neither of theſe profeſſors have ventured to ſuggeſt any thing reſpecting the indications of cure.

If the tumour is ſuppoſed to be *ſcirrhous,* that is itſelf a genus: if it is *fat,* we muſt conſider it as a ſpecies of *polyſarcia:* if it is cauſed by *hydatides,* it belongs to *aſcites.*

Genus LXXV. *Rachitis.*

Rickets.

THE ſymptoms are large head; prominent forehead; protruded ſternum; ſwelled joints; flattened ribs; big belly; emaciated limbs; great debility.

SECTION I.

HISTORY AND PROGRESS OF RACHITIS.

It is uſually confined in its attack between the two periods of nine months and two years of age, ſeldom appearing ſooner than the former, or ſhewing itſelf for the firſt time after the latter period. The muſcles become flaccid, the head enlarges, the carotids are diſtended; the limbs waſte away, and their epiphyſes increaſe in bulk. The bones and ſpine of the back are variouſly diſtorted; diſinclination to muſcular exertion follows; the abdomen ſwells and grows hard; the ſtools are frequent and looſe; a ſlow fever ſucceeds with cough and difficulty of reſpiration. Atrophy is confirmed, and death enſues. Frequently it happens, that nature reſtores the general health and leaves the limbs diſtorted.

After death, the liver and the ſpleen have been found enlarged and ſchirrhous; the meſenteric glands indurated, and the lungs either charged with vomicæ or adhering to the pleura; the bones ſoft, the brain flaccid or oppreſſed with lymph, and the diſtended bowels loaded moſt frequently with ſlime, ſometimes with worms, See Van Swieten, Comment. § 14, 85, 6.

It is remarkable, that in the kindred diſeaſe, which Hoffmann and Sauvage call the atrophy of infants,

infants, we have many of the ſame ſymptoms, and the ſame appearances nearly after death. They who periſh by this diſeaſe, ſays HOFFMANN, have the meſenteric glands enlarged and ſcirrhous; the liver and ſpleen obſtructed and increaſed in ſize; the inteſtines are much inflated and are loaded with black and fœtid matters, and the muſcles, more eſpecially of the abdomen, waſte away.

They have the ſame prediſponent, the ſame occaſional cauſes, and the ſame indications of cure.

SECTION II.

OF THE CAUSES REMOTE AND PROXIMATE OF RACHITIS.

THE prediſponent cauſe muſt be ſought for in laxity and debility, as more particularly obſerved in the children of enervated and vicious parents, and in thoſe whoſe nurſes are oppreſſed with poverty. See Boerhaave's Aphoriſms, § 1482.

The occaſional cauſes may be traced to diet, bad air, humidity, previous diſeaſe, and want of exerciſe.

It is eſſential to the health of infants, that they ſhould be kept clean, regularly fed, well exerciſed, and breathe freſh air. All their motions ſhould be governed by the clock. Yet, if the parents were hyſterical or ſcrophulous, and of an irritable fibre, the

the children, even with the beſt nurſing, may be delicate, relaxed, and ſubject both to troubleſome acidities, and to morbid affections of the alimentary canal. In this caſe they ſhould have frequently magneſia and rhubarb, or teſtaceous powders; and to the neglect of ſuch precautions we muſt attribute the diſeaſe in queſtion.

Dr. CULLEN, for the proximate cauſe of rickets has aſſigned deficiency of bony matter in the fluids, which, ſays he, in ſome meaſure depends upon a general laxity and debility of the moving fibres of the organs that perform the functions of digeſtion and aſſimilation. My opinion virtually coincides with his. But whether we agree with him, or whether with HOFFMANN, we aſſume for the proximate cauſe impeded ſupply of nervous influence to the ſpinal marrow, either by obſtruction or compreſſion, preventing the nutrition of all the parts which derive nerves from it, we ſhall find that the indications will be the ſame.

The proximate cauſe aſſigned by HOFFMANN for his *atrophia infantum* is deficiency of nutrimental juices, which he ſuppoſes to depend on depraved digeſtion, ill conditioned chyle, and obſtructed lacteals; and then he adds, *Quam maxime autem hoc loco accuſari etiam debet bilis defectus, vel inertia à præternaturali hepatis conſtitutione inducta, ob quam non modo digeſtio valde læditur, ſed oſcula quoque tunicæ inteſtinorum villoſæ, minus ritè à mucoſitate ſua liberata, chylum ægrius recipiunt et tranſmittunt.* This ſagacious obſervation

is,

is, in my opinion, equally applicable to rickets as to the atrophy of infants. For certain it is, that if the bile, which is the natural cathartic, is either deficient or inert; the villous coat of the inteſtines not being properly freed from mucus, the mouths of the lacteals will not perform their office, the chyle will neither be collected, aſſimilated, nor tranſmitted to its receptacle, and atrophy will follow. But when the bile is either deficient or inert, the food will ferment, elaſtic gas will be diſcharged, the inteſtines will be inflated, and fœtid ſtools will paſs. When again general laxity and debility prevail in the moving fibres of the organs that perform the functions of digeſtion; the ſame laxity may extend not only to the mucous glands, in conſequence of which a ſuperabundant quantity of mucus will be poured into the ſmall inteſtines to obſtruct the free exit of the bile, and to diſorder the functions of that viſcus; but, as this debility and laxity are general, the conſequence may be morbid action of the oſſifying veſſels which ſecrete bony matter from the blood.

The opinion of Dr. Staudenheimer, as expreſſed in a letter to Dr. Scherer, of Vienna, coincides with what I have ſaid upon this ſubject. Speaking of ſoda as a lithontriptic, he adds, *Non ſolum vero ad calculum ſodæ uſum ego reſtrinxi; ſed quum multa a vi ejus* MUCUM-SOLVENTE *et antacida ſperarem in aliis quoque morbis illam cum bono ſucceſſu adhibui*, and then immediately he refers to *rachitis*.

For

For a confirmation of his ſentiments he appeals to the authority of *Veirac*, who wrote a treatiſe in Dutch on rachitis, and gave ſoda with excellent effect. See Miſcellanea Phyſico Medica, p. 203, 204, publiſhed by Dr. J. A. Scherer at Vienna, 1795.

SECTION III.

OF THE INDICATIONS OF CURE IN RACHITIS.

FROM the view I have given of the cauſes remote and proximate of rickets, it will naturally follow that the indications of cure muſt be,

1. To cleanſe the firſt paſſages from viſcid mucus.

2. To reſtore tone to the ſtomach, to the whole of the alimentary canal, and thereby to the ſecretory veſſels of the bones.

Theſe indications I ſay naturally flow from the principles I have laboured to eſtabliſh, and theſe are the indications of all the moſt eminent practitioners.

HOFFMANN recommended to begin with cleanſing the firſt paſſages, as the ſource of all the evil, by gentle laxatives, not omitting, if required, a mild emetic of ipecacuanha, with ſugar and cinnamon water; becauſe by theſe means, not only the *ſordes viſcidæ*, collected in the ſtomach and inteſtines, are removed, but by theſe ſtimuli the obſtructed

ſtructed veſſels are opened and a free paſſage is ſecured for the chyle. Vol. iii. p. 489.

Staudenheimer and Veirac gave ſoda, which is certainly a good medicine; but our immortal Sydenham, both in the atrophy of infants, which, as he properly remarks, imitates rickets, and in the true rachitis, orders the following cathartic.

℞ Tamarind. ℥j. Fol. Sennæ, ʒiv. Rhei, ʒiij. Coq. s. q. Aq. Colaturæ ℥vj. Diſſolv. Mannæ et Syr. Roſa c. aa ℥ij. f. M. c. c. Cochl. j. vel ij. plus minus pro ætate.

That is,

Tamarinds one ounce; ſenna four drams; rhubarb three drams; water ſufficient to make ſix ounces when filtrated; to this add manna and ſyrup of roſes, of each two ounces. Give a ſpoonful or two according to the age and conſtitution of the infant.

By this gentle cathartic SYDENHAM aſſures us he cured a great many infants of rickets. He indeed, with this recommended an aperitive liniment for the abdomen; but the cure, as I imagine, muſt be attributed to the cathartic. In this perſuaſion I have conſtantly ordered the latter, and have taken no notice of the former; yet after thirty years experience, in a neighbourhood in which rickets abound, I do not recollect a ſingle inſtance in which this cathartic, with the aſſiſtance of tonics, failed to effect a cure.

With regard to the ſecond indication, Dr. CULLEN

LEN has obſerved, that the remedies for rickets have been ſuch eſpecially as were ſuited to improve the tone of the ſyſtem in general, or of the ſtomach in particular, and by this means to improve alſo the tone of the whole ſyſtem. With this view BOERHAAVE has preſcribed the following:

℞ Fol. et Flor. Betonicæ, un. 3. Cortic. Radic. Capparidis, Tamariſci, Rubi Sylv. Trichomanis aa un. 2. Limat. Ferri. dr. 4. cum Vini lib. 8. in frigore infuſa. Adhibeantur ter de die ad unc. 1.

℞ Entis Veneris Boylei, gr. 2. Exhibe veſperi, ex Vino Canarienſi quotidie Spatio iij. ſeptimanarum.

That is,

Give two grains of Boyle's Ens Veneris in wine every night for three weeks.

℞ Limat. Martis ℥j. Aceti Stillat. Acerrimi ℥x. Saccharri ℥iij. In phiala alta ebulliant leniter ſpatio 26 horarum, filtratus liquor ſervetur vaſe clauſo. Datur gtt. vj. horis medicis quotidie ex pauxillo vini hiſpanici.

That is,

Filings of iron one ounce; ſtrongeſt diſtilled vinegar, ten ounces; ſugar three ounces. Let theſe boil gently in a tall vial for twenty-ſix hours. The filtrated ſolution is to be kept in a cloſe veſſel, and ſix drops may be given three times a day in ſtrong white wine.

Boyle's

Boyle's Ens Veneris is not a preparation of copper, as the name ſeems to imply: but is moſt undoubtedly produced from green copperas (ferrum vitriolatum) by means of ſal ammoniac. Mr. BOYLE, on whoſe veracity we may indulge the moſt implicit confidence, aſſures us that he and his friends, including ſome phyſicians, cured two or three hundred children, and that almoſt always without the help of any other internal medicine or external application: yet many of theſe were in a deſperate condition. He gave from two or three grains to ten or twelve, and in ſome caſes to twenty or thirty, and found it operate by urine and by ſweat. This medicine may be prepared from iron filings with twice their weight of ſal ammoniac, as firſt recommended by Boerhaave and ordered by the London college. It is the *ferrum ammoniacale*, of which the common doſe is from ſix grains to twenty.

HARTMANN's *cachectic powders*, compoſed of iron filings, cinnamon, and ſugar, in equal parts, is certainly an approved medicine, and by a few grains of rhubarb may be rendered ſtill more efficacious.

Freſh air, exerciſe, and more eſpecially cold bathing, ſo much celebrated by Sir JOHN FLOYER, have frequently alone been ſufficient to effect a cure.

Claſs

Claſs III. CACHEXIÆ.

Order III. IMPETIGINES.

CACHEXIÆ deforming the external parts of the body with tumours, change of colour, and eruptions.

In this order we have nine genera; ſcrophula, ſyphilis, ſcorbutus, elephantiaſis, lepra, frambæſia, trichoma, icterus, chloroſis.

Genus LXXVI. *Scrophula.*

King's Evil.

THE ſymptoms are ſwelling of the lymphatic glands, chiefly in the neck; thick upper-lip; tumid abdomen; ſmooth ſkin; florid complexion, and obſtinate ulcers.

SECTION I.

HISTORY AND PROGRESS OF SCROPHULA.

IT appears moſt often between the third and the ſeventh year, yet ſometimes later, even to the age of puberty, particularly in perſons of a fine ſkin,

an irritable fibre and a relaxed habit. Frequently it has attended or has followed rickets, and in ſubjects, who are diſpoſed to ſcrophula, we ſee it apparently produced by ſmall-pox. The ulcers break out chiefly in the ſpring, and are very commonly healed before the approach of winter. Theſe moſt frequently are upon the ſides of the neck below the ears; but ſometimes in other parts, particularly about the joints. In ſome patients we obſerve only a tendency to *ophthalmia tarſi*, or perhaps the upper lip tumid and deeply chapped. It is the diſeaſe of humid climates. I never met with it in the ſouthern provinces of Spain.

Scrophulous tumours come on inſenſibly, proceed ſlowly, do not readily produce the ulcerative proceſs, and the formation of matter in them is not preceded by adheſive inflammation to limit their extent. Hence it is that ſcrophulous collections of matter are always larger than they would have been if they had been either a conſequence of inflammation, or attended by it.

The matter poured forth from ſcrophulous tumours is not pus, but is generally a kind of viſcid ſerum, and contains a curdly or a flaky ſubſtance, which, as JOHN HUNTER obſerves, is the coagulating lymph deprived of its ſerum; nor is pus produced till inflammation is excited in the abſceſs and nature proceeds towards a cure. This ſeldom happens before the collection of matter has been opened, ſo as to give it a free diſcharge, for then inflam-

mation comes on, and ſpreads to a wide extent, and when the abſceſs is diſpoſed to granulate, it pours forth good pus; but when the ſecreting veſſels have loſt either their tone or ſtructure, they are not diſpoſed to take on healing action, and the diſcharge is not true pus.

Scrophulous ulcers have uſually their edges irregular, ſmooth, and flat, without the leaſt diſpoſition to contract for a conſiderable time, unleſs freſh ulcers appear in other parts; ſo that when one is healed, little progreſs is made towards the general cure. Sometimes theſe ulcers are diſpoſed to ſpread, both in extent and depth, eroding cartilages, and affecting the contiguous bones with caries, till the conſtitution, haraſſed inceſſantly by fruitleſs efforts to relieve itſelf, is exhauſted of its ſtrength and ſinks into a mortal hectic.

On diſſection the meſenteric glands are generally found to be diſeaſed, and tubercles are frequently diſcovered in the lungs.

SECTION II.

OF THE SPECIES OF SCROPHULA.

SAUVAGE enumerates eight ſpecies; but Dr. CULLEN reduces theſe to four: ſcrophula *vulgaris*, ſcrophula *meſenterica*, ſcrophula *fugax*, ſcrophula *Americana*.

Scrophula

1. Scrophula *vulgaris*, ſimple, external, permanent. To this ſpecies the general deſcription is more particularly applicable. It frequently terminates in phthiſis.

2. Scrophula *meſenterica*, ſimple, internal, with paleneſs, want of appetite, tumid abdomen, and unuſual fœtor of the excrements. It terminates in atrophy. On diſſection the meſenteric glands are found to be diſeaſed.

3. Scrophula *fugax*, moſt ſimple, and only about the neck, quickly vaniſhing, and as ſpeedily returning. It is occaſioned, ſays Dr. CULLEN, by ulcers in the head. SAUVAGE particularly ſtates the drying up of tinea, or the ſudden ſtoppage of a purulent diſcharge from the ears of children, as the occaſional cauſe of ſtrumous glands, and his ſtatement is certainly well founded. But neither of theſe profeſſors have noticed a very common cauſe of ſcrophula *fugax* in children of an irritable habit, which is *lice*. I have ſeen it frequently, and am happy to recollect, that this circumſtance did not eſcape the ſagacity of a much reſpected friend, the late Dr. Barwis of Devizes. Theſe vermin harbour much about the nape of the neck, and by their irritation occaſion the glands in the vicinity to ſwell; but no ſooner are they deſtroyed than the ſwelling of the glands ſubſides.

4. Scrophula *Americana* combined with *frambœſia*. The ſtrumous ſwellings are in the neck; the black and fungous excreſcences are on the head.

SECTION III.

OF THE PROXIMATE CAUSE OF SCROPHULA.

From a conſideration of all the ſymptoms we cannot heſitate to agree with Dr. Cullen, that ſcrophula depends upon *a peculiar conſtitution of the lymphatic ſyſtem*; but this concluſion will not aſſiſt us in our indications of cure. It is neceſſary therefore to advance another ſtep. The proximate cauſe then of ſcrophula, as it appears to me, muſt be either a lax, inert, and paralytic ſtate of the lymphatics, or preternatural excitement of the exhalant arteries, of which debility and morbid irritability conſtitute the prediſponent cauſe. In either of theſe ſuppoſitions the effect will be ſimilar, for ſtagnation of the ſecreted fluid and diſtention of the glandular veſſels muſt be the conſequence.

SECTION IV.

OF THE INDICATIONS OF CURE IN SCROPHULA.

If we ſuppoſe the proximate cauſe of ſcrophula to be a lax, inert, and paralytic ſtate of the lymphatics;

phatics; the indication will be, as in palſy, to reſtore their energy by tonics. Should we however be more inclined to think that preternatural excitement of the exhalant arteries is the cauſe, we may vary the terms of our indications, but the remedies will be ſtill the ſame; for here it will be required,

1. To remove the ſtimulating cauſes whatever they may be.

2. To obviate the prediſponent cauſe, for which purpoſe we muſt have recourſe to tonics.

Practitioners have recommended a variety of medicines for the cure of ſcrophula, and every one is partial to his own; but all, who have been moſt ſucceſsful in their treatment of this diſeaſe, have adopted ſuch as coincide with theſe intentions. When air, exerciſe, and a generous diet, with ſea-bathing, the Peruvian bark, and ſteel, are ordered, it is obviouſly with a view to their tonic power; and when cathartics are preſcribed, it is not for the purpoſe of exciting the action of the abſorbents by conſent, nor ſhould it be with the idea, that they will be conveyed as deobſtruents to the glands affected, but that by moderately cleanſing the organs of digeſtion, and the mouths of the inteſtinal abſorbents, they may promote a plentiful ſupply of wholeſome chyle, which is the moſt powerful tonic; nay, ſuch a tonic, that with air and exerciſe ſcarcely any other is required. Lord Bacon ſays,

nothing contributes ſo much to longevity and health as frequent and domeſtic laxatives.

Dr. Russel ſent his patients to the ſea-ſide, and ordered them to rub their glandular ſwellings with the *alga marina*; but we muſt take eſpecial notice, that he never omitted ſea-bathing, with ſmall doſes daily of ſalt-water.

Dr. Garnet recommends Harrowgate water in ſmall quantities, frequently repeated. This evacuates the bowels.

Mr. Morley of Eſſex, juſtly celebrated for innumerable cures, tied, with ſuperſtitious rites, a root of vervain on the breaſt near to the cartilago-xiphoides; but then, it muſt be obſerved, he frequently repeated ſmall doſes of cathartics joined with antimonials and the extract of conium maculatum.

Roncalli, who for ſtrumous ſwellings applied ox gall, nut oil, and ſalt, twice a day; with this external application occaſionally gave cathartics.

Dr. Collin cured 41 caſes of glandular ſwellings with hemlock, raiſing the doſe from fifteen grains to twenty, three times a day. The late Dr. Fothergill preferred the extract, two drams of which he made into thirty pills. Of theſe, he gave two in the morning, two at noon, and four at night, increaſing the doſe. He informs us in his works, that they promote reſt, eaſe pain, and procure a laxative ſtool the day after they are taken. Thus exhibited they have no diſagreeable effect, but change a thin corroſive ichor into good pus.

The

The ſtudent muſt be careful not to be deceived, when he orders either the leaves or the extract of *conium maculatum*; for, as Dr. BUCKHAVE informs us, the *æthuſa cynapium*, the *cicuta veroſa*, the *chærophyllum ſylveſtre*, and the *phellandrium aquaticum*, with other *umbellatæ*, are frequently miſtaken for the hemlock, and produce deleterious, or at leaſt moſt diſtreſſing effects.

Dr. MARRYAT, of Briſtol, uſed to give the following:

℞ Merc. Muriat. gr. x. Acid. Muriat. gtt. 10. Vin. Antimon. ℥j. M. c. gtt. 20. bis die.

That is,

Muriated mercury ten grains; muriatic acid ten drops; antimonial wine one ounce. Mix. Take twenty drops twice a day, to be continued for months. If it purges, the doſe muſt be diminiſhed.

Dr. WHYTT, as a mere rational practitioner, gave rhubarb and calomel every fourth night in ſuch a doſe as to procure two motions; or if that failed to cure, he ordered an ounce of Spaniſh ſoap to be taken daily to clear the glands, and Peruvian bark to brace the relaxed lymphatics.

Dr. FOTHERGILL did not in all caſes confine himſelf to hemlock, but frequently preſcribed calomel and ſulphur auratum antimonii, of each one grain, to be taken every night with the following;

℞ Cinchon. ℥j. Coque in Aq. ℔ij. ad ℔j. ſub

finem addendo Glycyr. inciſ. ℥ſs. Colaturæ adde Aq. Nucis Moſch. ℥ij. M. hujus capiat Co. iij. cum Tinctur. Guaiac. vol. gtt. 20 ad gtt. 60, ter in die.

That is,

Peruvian bark one ounce; boil in a quart of water to a pint, and add liquorice root half an ounce; filtrate and put to it nutmeg water two ounces. The doſe is three ſpoonfuls with from twenty to ſixty drops of volatile tincture of guaiacum three times a day.

Dr. CULLEN ſays little in favour of bark, and of both antimony and mercury, in every ſhape, he confeſſes, that he never found them uſeful in this diſeaſe. Yet many of our moſt eminent practitioners, as we have ſeen, place their whole dependence on theſe medicines, and find them ſufficient to effect a cure. Dr. J. Fordyce ſpeaks in the higheſt terms of the Peruvian bark, and Sir Clifton Wintringham agrees with him, but adds chalybeates to increaſe its tonic power.

The late Dr. CRAWFORD recommended to our notice *muriated barytes* as at once an evacuant, deobſtruent, and tonic, when given in doſes of two drops, and gradually increaſed to ten drops of the ſaturated ſolution in a cup of water twice a day. In larger doſes, as he informs us, it produced nauſea, vomiting, and purging: but Dr. FERRIAR never found any ſenſible effect from it even in doſes of twenty drops given twice or thrice a day. Electri-

city

city has been efficacious, and may be tried with ſafety.

In caſe of *white ſwelling*, the moſt approved practice has been to apply a large bliſter to the knee, which was kept on for three or four days at a time, and frequently renewed; but the inhalation of ſuper-oxygenated air ſeems to promiſe more effectual relief.

From what I have witneſſed of the practice of my friend Dr. THORNTON, I am perſuaded, that in white ſwellings and foul ulcers it will greatly expedite the cure. For in this new mode of treatment with *vital air*, energetic action in the part is ſupported by the ſyſtem, whereas in the old practice, with external applications only, it is kept up for a ſhort time by partial ſtimuli on weak and diſeaſed veſſels. But on this ſubject I ſhall enlarge when I am to treat of ulcers. When medicines fail to effect a cure, a change of climate muſt be recommended, and no climate, in my opinion, can be ſuperior to that of *Valencia*, either for this diſeaſe or for that ſpecies of conſumption which originates in ſcrophula. But independently of climate, the cicuta certainly grows there in ſuch perfection, as never yet has been diſcovered in the cicuta of our iſland, and the phyſicians have had ſufficient experience of its uſe in theſe truly deplorable complaints.

Should the ſcrophulous or conſumptive patient be inclined to make the trial, he will have an eaſy rout by Paris, Lyons, Montpellier, and Barcelona, and

and for leſs than fifteen guineas he will find himſelf tranſported into a paradiſe, in which nature exhibits an everlaſting ſpring.

Genus LXXVII. *Syphilis.*

Venereal Diſeaſe.

The ſymptoms are, after impure connection, gonorrhœa, chancres; nocturnal pain in the bones; ulcers in the mouth and noſe; cluſtered pimples of a copper colour ending in ſcabby ulcers, chiefly ſituated near the hairy ſcalp, with blotches on the ſurface of the body, often in the face.

On diſſection, the bones, particularly of the ſkull, are found eroded like a honey-comb.

This diſeaſe, imported from America, made its firſt ravages in the French and Spaniſh armies at the ſiege of Naples, in the year 1493, from whence it ſpread with ſuch aſtoniſhing rapidity, that within four years it reached every part of Europe. In the year 1497, a proclamation appeared in Scotland, ordering all who laboured under the *grand gore*, to quit the continent, and to repair without delay to a little iſland in the Frith of Forth, where the king ſtationed ſurgeons to attend them.

The introduction of ſuch a ſcourge to the human race diffuſed univerſal terror, yet the infection

ſpreads

ſpreads in every nation; moſt however among thoſe who are leaſt acquainted with its nature and its cure.

We may conſider the operation of the ſyphilitic virus as either local or univerſal.

1. The local operation of the ſyphilitic virus is inflammatory, and muſt be treated as ſuch by adhering ſtrictly to the antiphlogiſtic regimen. With this intention a vegetable diet muſt be adopted with demulcents and ſuch cooling laxatives as are not apt to excite the action of the kidneys.

For a demulcent, we may order a decoction of either linſeed or althæa, with gum arabic or gum tragacanth, or the ſubſequent compoſition may be occaſionally taken:

℞ Ol. Olivarum. Gum. Arab. Syrup. Limon. aa dr. 4. M.

Should the inflammation run high, either apply leeches near the part affected, or let about twelve ounces of blood be taken from the arm. Dr. Whytt, as I remember, found it neceſſary to take an hundred and thirty ounces of blood from one patient before he could ſubdue the inflammation. But if by the neglect of theſe evacuations, ulcers ſhould be formed in the urethra, corroſive ſublimate much diluted muſt be injected.

When by the antiphlogiſtic regimen the inflammation has ſubſided, the ſtrong mercurial ointment of

of the London Phamacopœia may be rubbed on the perinæum, and either the pilulæ hydrargyri, or ſmall doſes of calomel, may be preſcribed, at the ſame time cautiouſly avoiding ſalivation. The ſubſequent compoſition has been much recommended.

℞ Merc. Muriat. gr. 10. Acid. Muriatic. gtt. 10. Tinct. Lavend. comp. unc. 1. M. The doſe is from ten to thirty drops morning and evening in water-gruel, with two ſcruples of gum arabic. Should a purging be induced by this quantity, the doſe muſt be diminiſhed, and at all events the patient muſt take plenty of diluting liquids, and a free perſpiration muſt be encouraged.

After ſuch evacuants, the cure muſt be perfected by tonics.

R Limat. Ferri, ℥iſs. Oliban. ℥ij. Cantharid. gr. 10. Gum. Arab. ℥ij. Balſ. Copaiva, q. s. f. Elect. c. c. M. N. M. bis die.

That is,

Steel filings one dram and an half; olibanum two drams; cantharides ten grains; gum arabic two ounces; balſam of copaiva ſufficient to make an electuary. Take the ſize of a nutmeg twice a day.

2. Whether the operation of the ſyphilitic virus is extended to the whole ſyſtem, the diſeaſe then by foul ulcers and eruptions on the ſkin aſſumes its cachectic form, and vindicates its claim to rank with the impetigines. In this caſe it requires ſomewhat of

of a rougher treatment by mercurials externally and internally, exhibited with a more liberal hand, yet ſo as not to bring on ſalivation. With this intention Dr. WRIGHT of Jamaica recommends the following:

℞ Gum. Guaiac. ʒx. Serpent. Virgin. ʒiij Pimento, ʒij. Opii, ʒj. Hydrargyr. Muriat. ʒſs. Sp. Vin. Rect. ℔ij. Digere per tres dies. Cola. c. Co. ij. paro in decoct. Sarſaparil. ℔j. bis die.

That is,

Gum Guaiacum ten drams; Virginian ſnake-root three drams; piemento two drams; opium one dram; corroſive ſublimate half a dram; rectified ſpirit of wine two pounds. Digeſt for three days. Strain. Doſe two tea-ſpoonfuls in a pint of decoction of ſarſaparilla twice a day. He aſſures us that in four or five weeks he makes a perfect cure.

A friend, who was intimately acquainted with Dr. CIRILLO of Naples, in the year 1782, has been ſo kind as to communicate to me his celebrated ointment for the lues, by which this eminent practitioner had then cured more than five thouſand patients, of whom ſcarcely one had ptyaliſm.

Take corroſive ſublimate two drams, hog's lard well waſhed, two ounces; mix them thoroughly by long continued triture in a marble mortar. Of this ointment half a dram muſt be rubbed into the ſoles of the feet for three days ſucceſſively, and muſt be then intermitted for one day. In the mean time the patient

tient may take extract of the gums. Theſe friction muſt be continued till all the ſymptoms vaniſh.

To prevent a ſalivation, perſpiration is to be encouraged, and cathartics muſt be occaſionally interpoſed. But ſhould theſe precautions prove inſufficient, recourſe may be had to ſulphurated kali, in the manner communicated to Dr. BEDDOES by his ingenious correſpondent Dr. THOMAS GARNET of Harrowgate. This gentleman aſſures us, that he has tried it ſeveral times, and that he has never ſeen it fail to abate the ſalivation to a conſiderable degree in 24, or at moſt in 48 hours. The new chemiſtry throws much light upon this intereſting fact, and enables us clearly to ſee the modus operandi. For, as Dr. GARNET has obſerved, the *ſulphurated hydrogen*, reſulting from the decompoſition of water by kali ſulphuratum, is conveyed into the blood, and there the hydrogen, uniting with the oxygen of the mercurial oxyd, forms water, whilſt the ſulphur converts the mercury into an æthiops which is inert.

Dr. DUNCAN in his valuable publication mentions a Dr. THUSINK, who gives opium in conſiderable doſes, and informs us, that in Liſle five hundred patients had been cured by it alone. Time will diſcover whether this high character of opium is well founded.

But the moſt intereſting communication is the caſe of *the wealthy merchant*, for which we are indebted

debted to my ingenious friend Dr. THORNTON. When this Proteus diſeaſe, as he properly ſtyles it in his letter to Dr. BEDDOES, had laid aſide its inflammatory form, and appeared for two years in its cachectic character, with an ill-conditioned ulcer in the lungs, dreadful blotches on the ſkin, and other moſt diſtreſſing ſymptoms of debility, Dr. THORNTON made him inſpire *ſuperoxygenated air* whilſt he was taking muriated mercury, ſtrong decoction of cinchona with the bark in ſubſtance, aſſiſted in its tonic power by two grains of opium every night.

By this beautiful and moſt conſiſtent plan, the cure of this deplorable caſe was perfected in ſix weeks.

If the ſtudent is deſirous of further information than the contracted limits of a work like mine can properly admit of, let him conſult the moſt inſtructive treatiſe of Dr. FOART SIMMONS, from which he will learn all that is needful to be known upon this ſubject.

Genus LXXVIII. *Scorbutus.*

Scurvy.

THE ſymptoms are indolence and laſſitude; countenance bloated, gloomy; *gums livid, ſpongy, apt to bleed;*

bleed; ſkin dry and ſhining, with livid ſpots, more eſpecially at the roots of the hairs; breath offenſive, and œdematous ſwelling in the legs.

As the diſeaſe advances the patient becomes ſubject to profuſe hæmorrhages from every part of the body; ulcers break out and are very foul; the urine is extremely rank and fœtid; and he has moſt offenſive ſtools; the pulſe is commonly ſlow and feeble; the reſpiration is laborious, and his death, more eſcially if ſuddenly expoſed to freſh air, is ſudden.

The perſons moſt ſubject to ſcurvy, according to HOFFMANN, are delicate females, old people, and young men who have either ſuffered by anxiety and grief, or have been exhauſted by previous diſeaſes, ſuch as hæmorrhage and fever, but more eſpecially they who are *remarkable for fat*. This curious obſervation is confirmed by ſucceeding practitioners, and particularly by Dr. TROTTER, who, among other inſtances, mentions five natives of China returning on board the Cheſterfield Indiaman, in the year 1788. Theſe men were ſo fond of ſluſh, which is the *fat* of ſalt meat ſkimmed from the water in which it is boiled, that, with a cunning not to be deſcribed, they evaded the quickſighted vigilance of the cook, and in five weeks from the time of their leaving England became monſtrouſly corpulent. In conſequence of this they were ſhortly over-run with ſcurvy, and although none of the crew, not even the landſmen, had the leaſt ſymptom of that diſeaſe, they ſuffered by it the whole voyage to a moſt

a moſt dreadful degree, till the Cheſterfield arrived in port.

The occaſional cauſes commonly aſſigned are, cold, moiſture, vitiated air, ſalt proviſions, inactivity, and more particularly a ſcarcity of recent vegetables.

It is not confined to thoſe who are at ſea, for it is frequently obſerved on land in low ſituations, where humidity prevails with cold. Here it is endemic, more eſpecially near the ſea, particularly if the inhabitants live chiefly on fiſh and ſalt proviſions.

As to the proximate cauſe of ſcurvy, it appears to be relaxation of the ſolids and a diſſolved ſtate of the fluids, or, in other words, a deficiency of well *oxygenated* blood.

With this idea of the proximate cauſe, Dr. TROTTER tried diluted ſulphuric acid in ſufficient doſes, concentrated acid of tartar to the quantity of ſix drams a day, the beſt wine vinegar to the amount of a quart a day, and even nitre half an ounce a day, without any remarkable benefit; neither did his patients derive advantage from either ſpruce beer or ſugar. But when he gave them oranges, lemons, apples, or, for want of theſe, the citric acid in doſes of two ounces three times a day, their recovery was rapid, and he remarks, that by throwing in acid fruits ſcurvy may be effectually cured, even when all the remote cauſes, excepting ſcarcity of recent vegetables, are left to act in their full force.

But whilſt *oxygen* is thus conveyed into the ſyſtem by the organs of digeſtion, the more natural and regular ſupply by reſpiration muſt not be neglected. The patients ſhould either be removed to a diſtance from vitiated air, or where they are ſtationed ſhould have a conſtant ſupply of that which is moſt pure. For the latter purpoſe, in a ſhip, no contrivance is to be preferred to the invention of Dr. PAPIN, which was originally deſtined to that uſe, as well as to fill deep mines with wholeſome air, but has been ſince confined wholly to the winnowing of corn. For this purpoſe it has for more than a century been every where uſed in Holland; and for half a century in the north of Britain. It is to be ſeen in the repoſitory of the ſociety of arts, manufactures, and commerce, at the Adelphi. This inſtrument, by means of canvas pipes, will convey a plentiful ſtream of air with a ſtrong blaſt to the moſt diſtant receſſes of a ſhip, and no licence for its uſe is needful from any patentee, becauſe, although little noticed till of late, it has no claim to novelty.

Exerciſe increaſes reſpiration and quickens the circulation of the blood, deriving thereby a greater quantity of *oxygen* from the ſurrounding atmoſphere, and diſtributing that pabulum of vital energy to every part of the animated frame. Hence it is, that in pure air, exerciſe ſtrengthens; but in vitiated and foul air, it relaxes, debilitates, and tends quickly to exhauſt the powers of life.

Hope, in all diſeaſes of debility, is to be reckon-

ed among the firſt of efficacious remedies. It quickens the circulation and invigorates the ſyſtem in the ſame proportion as fear enervates and ſinks the pulſe. In ſcurvy, more eſpecially, it is found, that whatever inſpires confidence and hope tends to expedite the cure. The experiment was fairly tried at Breda, where, during the ſiege, when the garriſon, reduced in their numbers by the ravages of this diſeaſe, were ready from deſpair to deliver up the town; a medicine ſent by the Prince of Orange, the preparation of which was reported to have been expenſive in the extreme, was diſtributed to the ſurgeons and adminiſtered in drops. This medicine, boaſting of properties, to which it had no equitable claim, wrought wonders, and all who took it in the confidence of hope were ſpeedily reſtored to health.

Genus LXXIX. *Elephantiaſis.*

THE ſymptoms are ſkin thickened, rough, wrinkled, unctuous, and void of hair; face deformed with tubera; voice hoarſe or ſounding through the noſe, and want of feeling in the extremities.

HOFFMANN remarks, that in one ſpecies of elephantiaſis the *legs* ſwell up as high as the knees to a moſt enormous ſize, that they are covered with a ſcaly cruſt, which being abraded leave red marks,

and that theſe with intolerable itching pour out a thick humour, which ſoon condenſes into freſh ſcales. But for the true *elephantiaſis of the Greeks* he refers us to ARETÆUS. In this, according to that author, the ſuperior parts have many ſpots and tumours, the redneſs of which is ſoon converted into black. The ſkin is in ſome parts much thickened, hardened, ſcaly; the body becomes atrophic, yet the mouth, the thighs, and the feet, ſwell. In the inveterate diſeaſe the fingers and the toes are buried and hid with tumours. A ſlow fever ſucceeds, and deſtroys the patient.

It might have been ſufficient to have ſtated the ſymptoms of this diſeaſe, and with Dr. CULLEN to have left it where I found it; but having already hazarded ſo much in other parts of my work, I ſhall venture, ſupported by Van Swieten, to hazard ſomething here.

BOERHAAVE informs us in his aphoriſms, that a kind of elephantiaſis cures melancholia, *Attulit ſæpe curationem ſuperveniens ſcabies fœda, aliquando elephantiaſin æmulans*, § 1110; and his commentator particularly ſtates a caſe of inveterate *melancholy* thus cured.

The learned baron ſuppoſes his atrabiliary matter to be taken up into the ſyſtem, and to be thrown out again by the emunctories of the ſkin, where it irritates the cutaneous veſſels and produces the diſeaſe in queſtion.

To this ſuggeſtion he adds the ſubſequent remark.

mark. So in other diſeaſes we obſerve morbific matter, being carried to the cutaneous veſſels, obſtructs, inflames, and produces in them various puſtules and erruptions which irritate the ſkin.

From an attentive conſideration of the aſtoniſhing efforts of nature to relieve herſelf, together with the wonderful power of action of the abſorbents, I am inclined to think the ſuppoſition of VAN SWIETEN ſubſtantially juſt and his remark well founded.

Of the *atrabilis* I have already ſpoken when treating of the proximate cauſe of *melancholia*, and although the original idea of atrabilis has been proved to be erroneous, yet certain it is, that bile and viſcid mucus in the inteſtines produce much diſturbance in the ſyſtem. Diarrhœa is one of nature's efforts to get rid of theſe, but another effort, as I apprehend, is ſometimes made by means of the abſorbents. They certainly take up ſtagnant bile in jaundice, and convey it both to the kidneys and to the cutaneous veſſels, where it cauſes ſometimes a moſt intolerable itching, and therefore, conſidering their extenſive powers, it is by no means improbable that other offending matters, ſuch as frequently haraſs nature in the alimentary canal, may be abſorbed and thrown out upon the ſurface of the body. See the ſection on the abſorbents and their uſe in the introduction to this claſs.

If this idea of the diſeaſe in queſtion is well founded, we cannot be at a loſs for the mode of

treatment. Aretæus recommends, as a ſpecific, the ſhavings of an *elephant's* tooth. But this eminent practitioner, although infected with the medical ſuperſtition of the age, did not confine himſelf to ſuch ſpecifics; for every other day he gave ſmall doſes of white helleboré, of which he ſpeaks in the higheſt terms of commendation. Indeed he conſidered this cathartic as of all others the moſt efficacious, not only in this diſeaſe, but in all inveterate and deep rooted complaints, and in reſtoring to the pale countenance its florid hue. Celſus ſeems to prefer the black helleboré, but both theſe herbs were in the higheſt eſtimation for all diſeaſes ſuppoſed to ariſe from *atrabilis*.

Aretæus, in order to prevent the ſtagnation of acrid matters on the ſurface, where they muſt naturally irritate the cutaneous veſſels and produce a greater determination to the ſkin, ordered theſe foul eruptions to be waſhed in a bath with ſoap. For the tumours he preſcribed ſuet taken in equal parts from a lion and a bear, to be united with alkali, by which he compoſed a ſoap, but a ſoap of no uncommon virtue, for any other would have preciſely the ſame effect.

Both he and Celſus recommend ſtrong exerciſe.

Genus

Genus LXXX. *Lepra.*

Leproſy.

THE ſymptoms are the ſkin rough and chopped, with white furfuraceous ſcales and cruſts, under which is frequently a moiſture, with itching.

The obſervation I have made on elephantiaſis are applicable to leproſy. Dr. WHYTT conſidered a morbid ſtate of the veſſels under the epidermis as the proximate cauſe of this diſeaſe; but then he never attempted to account for that morbid ſtate of the cutaneous veſſels, any otherways than by ſuppoſing an acrimonious matter to fall on them. This indeed ſubſtantially agrees with the doctrine of VAN SWIETEN. And then, as theſe veſſels are diſeaſed, they muſt throw out a matter of a different kind and in greater quantity than they do in a ſtate of health: in conſequence of which, inſtead of a cuticle, their natural production, we have a hard, white cruſt, and furfuraceous ſcales.

Moſt phyſicians are agreed in leproſy to give antimonials and mercurials, or theſe powerful evacuants combined with opium, camphor, and guaiacum.

℞ Calomel. gr. vi. Camph. gr. iij. Conſ. Roſar. q. s. M. f. Bol. 6a. quaque nocte ſumend. et die ſequente.

℞ Kali Tartariſat. ʒj. Mannæ, ʒvj. Aq. fervent ℥iij. Tinct. Cardamom. ʒj. M. f. H. m. s.

That is,

Calomel ſix grains; camphor three grains; conſerve of roſes, ſufficient to make a bolus, to be taken every ſixth night; and the next morning take tartariſed Kali one dram, with manna ſix drams, diſſolved in three ounces of boiling water, to which add tincture of cardamums one dram.

In the intermediate ſpaces the patient may drink half a pint of ſea water every morning.

Or,

℞ Calomelanos, gr. xv. Sulph. Antimon. Precipit. ʒſs. Opii, gr. x. Ol. Saſſafr. eſs. gtt. xx. Extract. Lig. Guaiac. ʒij. Syr. Papaveris Alb. q. s. f. Pill. 36. Cap. Pill. iij. mane et veſp.

That is,

Calomel fifteen grains; precipitated ſulphur of antimony half a dram; opium ten grains; extract of guaiacum two drams; ſyrup of poppies ſufficient to make thirty-ſix pills, of which take three morning and evening.

Or,

℞ Merc. Muriat. gr. x. Acid. Muriatic. gtt. x. Vin. Antimonii, ℥j. M. c. gtt. 20. bis die.

Theſe muſt be followed by tonics and aſtringents.

℞ Cinchon. ʒiij. Mucil. Gum. Arab. ℥j. tere et adde

adde Elix. Vitriol. Acid. gtt. 90. Syr. Cort. Aurant. ℥j. Aq. Roſar. ℥vj. Tinct. Cardamomi Comp. ℥j. M. c. Co. iij. bis die.

That is,

Bark three drams; mucilage of gum arabic one ounce; grind them together; add acid elixir of vitriol ninety drops; ſyrup of orange peel one ounce; roſe water ſix ounces; compound tincture of cardamums one ounce. Take three table-ſpoonfuls twice a day.

Some have found benefit by tar ointment, and, when the eruption is not conſiderable in extent, mercurial ointment has been added to advantage.

A practitioner of eminence reports his having cured one patient by tincture of cantharides, thirty drops twice a day, increaſing the doſe to one dram three times a day. He cured others by dulcified ſpirit of vitriol, beginning with thirty drops, and increaſing the doſe to two drams, thrice a day.

For further obſervations conſult *Herpes* in the order DIALYSES, of the claſs *Locales*.

Genus LXXXI. *Trichoma.*

Plica Polonica.

THE hair grows long and coarſe, matted and glued into inextricable tangles.

This diſeaſe is commonly preceded by 1. Paleneſs.

neſs. 2. Weakneſs of the joints. 3. Pains in the head and in the joints of the hands and feet. 4. Noiſes in the ears. 5. Convulſions. 6. Contractions. 7. Rickets and fragility of the bones, and ſometimes mania.

It was imported into Poland from Tartary about the year 1687, and ſpread through Sileſia and Hungary in leſs than forty years. In autumn, the peaſants ſince that period have been ſubject to an eruptive fever, which principally infeſts the head, and terminates in this diſeaſe. It is indeed regarded as a critical diſcharge. No medicines relieve it, but in proceſs of time the plicæ fall off ſpontaneouſly.

If however they are prematurely cut off, the conſequence, according to HOFFMANN, is either a dreadful head-ach, epilepſy, phrenitis, mania, meloncholia, gutta ſerena, pluritis hæmoptyſis, or pthiſis pulmonalis. All theſe diſeaſes, if occaſioned by a latent plica, vaniſh as ſoon as the plica appears. For this reaſon they aſſiſt this effort of nature to relieve herſelf by embrocating the head with a warm decoction of club-moſs (*lycopodium clavatum*) twice a day. This in about a week produces the plica, and relieves the patient from the acceſſory diſeaſe.

Genus LXXXII. *Icterius.*

Jaundice.

THE ſymptoms are yellowneſs of the eyes and of the ſkin; fæces white; urine high coloured and tinging

ing linen yellow; univerſal languor, and laſſitude with coſtiveneſs.

To theſe ſymptoms, ARETÆUS adds, *Idem frigent imbecilli deſides, triſtes atque demiſſi animo ſunt.*

SECTION I.

OF THE CAUSES REMOTE AND PROXIMATE OF ICTERUS.

THE prediſponent cauſe is debility, as attended either by morbid irritability or by torpor. The occaſional cauſe may be unwholeſome diet, ſuch as unripe fruits or an over-proportion of the legumina, with auſtere and acid wines, or malt liquor when the acetous fermentation has advanced too far; hard drinking; agues, when prematurely cured by bark; protracted grief; anger; violent emetics; poiſons, particularly of ſerpents, and preſſure.

The proximate cauſes of *jaundice* is evidently obſtruction to the natural paſſage of the bile by the inteſtines, cauſing it to be taken up into the habit and to circulate in the blood veſſels.

This obſtruction may be either in the duodenum, at or below the entrance of the common duct, or in the duct itſelf. In the former caſe the bile paſſes by the lacteals into the thoracic duct; in the latter it may either regurgitate by the hepatic veins, as proved by Dr. SAUNDERS, or be abſorbed by

by the lymphatics, which are derived from all the branches of the hepatic duct, as he and Cruikſhank have frequently obſerved in their diſſections.

That obſtruction may take place in the duodenum is evident by diſſections, and has been particularly noticed by M. Portal. In the yellow fever of the Weſt-Indies, of which jaundice is a ſymptom, the exceſſive quantity of bile in the inteſtines proves that the biliary ducts are free. And when with jaundice we have regurgitation of bile into the ſtomach, as in caſe of *gaſtrodynia flatulente*, it is plain that the obſtruction is not in the duct, but in the ſmall inteſtines.

SECTION II.

OF THE SPECIES OF ICTERUS.

SAUVAGE has no leſs than fourteen ſpecies, which Cullen has reduced to five, viz. Icterus *ſpaſmodicus*; Icterus *calculoſus*; Icterus *hepaticus*; Icterus *gravidarum*; and Icterus *infantum*: but to theſe I think it expedient to prefix another, which more commonly occurs than either of the others, and to which I have given the name of Icterus *mucoſus*.

I. Icterus *mucoſus*, not attended by pain nor by ſpaſmodic affections. No gall ſtones are obſerved in the fæces, but with cathartics a quantity of viſcid

cid mucus is diſcharged. I have frequently met with icteric patients, who have evacuated more than a pint of gelatinous matter unmixed with fæces at one ſtool; and I met with one who, for ſeveral days together, paſſed ſuch a quantity of mucus that he thought his bowels were diſſolved.

The only modern author, who has clearly and directly laid a foundation for this ſpecies of jaundice, although it is certainly common, is baron VAN SWIETEN in his Commentaries, § 950; where he judiciouſly obſerves, *Imo et in adultis pituitoſa colluvies in primis viis hærens icteri cauſa fuit.* This obſervation he confirms by a reference to Hippocrates, who, with the greateſt propriety, declares it eaſy to be cured.

It is this ſpecies which has for its prediſponent cauſe the debility of torpor. The occaſional cauſes are unwholeſome diet with unripe fruits, or with an over proportion of the legumina; humidity and marſh miaſma; ill cured intermittents; indolence and want of exerciſe; hard drinking and cold liquids after violent exertion; anxiety and protracted grief. I ſhall enlarge on the action of theſe cauſes. The ſtomach and inteſtines are conſtantly ſupplied by appropriate glands with mucus, which lubricates their internal ſurface to prevent attrition and adheſions, and to defend them from immoderate irritation. This, in a ſtate of health and vigour, is produced only in ſufficient quantity to anſwer theſe ntentions; but the effect of grief and fear is to

relax

relax the glands and to increaſe the quantity of mucus. Their action is excited by the ſtimulus of ardent ſpirits, ſpices, and fermented liquors, and as, when once morbid habit is eſtabliſhed, they continue to pour forth their copious ſtreams, a conſtant determination from theſe glands takes place. The ſame determination is created by humidity, which checks perſpiration and increaſes the diſcharge of mucus by the inteſtinal glands, as well as the flow of urine by the kidneys. The poverty of diet above deſcribed, and want of exerciſe by cauſing general debility, tend to produce the ſame effect. Ill cured intermittents leave the bowels loaded with ſlime, and for this reaſon certainly it was, that in the caſes of remittent fever, obſerved by Sir JOHN PRINGLE, "if evacuations were either neglected or too ſparingly uſed, the patients fell into a continued fever, and ſometimes grew *yellow* as in a jaundice." See his Diſeaſes of the Army, part i. chap. 3.

This mucus, when firſt ſecreted by the glands, is fluid although viſcid, but when, by its accumulation, it has prevented the action of the bile, as the natural cathartic, upon the inteſtines, and produced ſome degree of coſtiveneſs, the abſorbents, taking up inceſſantly the aqueous particles, render it more tenacious, till it reſembles glue, or becomes, as I have ſtated in *tuſſis ſtomachalis*, tough as leather. Unripe fruits, auſtere or acid wines, and ardent ſpirits, as Boerhaave and Van Swieten have well obſerved, render this viſcid mucus ſtill more tenacious, § 69.

From a conſideration of theſe remote cauſes, and of the effect immediately produced by them, with attention to the anatomy of the parts concerned in jaundice, we ſhall not be at a loſs to aſſign the proximate cauſe in that ſpecies which we have now in view. It is certainly tenacious ſlime obſtructing the orifice of the common duct at its entrance into the duodenum. This effect may be the more readily conceived, if we call to mind the very oblique direction in which it penetrates the coats of that inteſtine, and that it paſſes for a ſhort ſpace between two of them. When thus the mouth of the common duct is cloſed we have commonly not only obſtruction to the paſſage of the bile into the inteſtines, but of the pancreatic juice; becauſe moſt frequently the pancreatic duct enters the duodenum by the ſame orifice; and then, for want of theſe detergent and ſtimulating fluids, tenacious ſlime accumulates, and the diſeaſe naturally goes on conſtantly increaſing.

Theſe ideas, I expect, will be confirmed by the caſes I ſhall produce, and by a conſideration of thoſe medicines which at any time have been found effectual in the cure of jaundice.

II. Icterus *ſpaſmodicus*, not attended by pain, but ſubſequent either to ſpaſmodic affections or to mental paſſions, and apt to be both ſudden in its attack, tranſitory in its duration, and, ſometimes, periodical.

The perſons moſt liable to this diſeaſe are, thoſe

of

of the ſanguine temperament, and of an irritable habit; the hyſterical, and ſuch as are ſubject to either iliac paſſion or the common bilious and ſpaſmodic colic.

For the prediſponent cauſe we may aſſign debility with morbid irritability, and for the occaſional cauſes, 1. Violent anger. 2. Venom communicated by the bite of animals, as of vipers, ſquirrels when enraged, mad dogs, and even ſpiders. 3. Stimuli applied to the inteſtines, whether violent emetics, draſtic cathartics; bile either in cholera or the beginning of bilious fevers, as in the yellow fever of warm climates, or the bilious autumnal fever of our iſland; worms; and even mucus, with either bile or undigeſted ſordes, in very irritable habits.

From what has been ſaid, it will appear, that for the proximate cauſe we may aſſign, with Mead, Hoffmann, Sauvage, and Cullen, *ſpaſmodic ſtricture* either in the duodenum, or at the mouth of the common duct.

The exiſtence of ſuch a ſpecies is confirmed by anatomical obſervations, becauſe in theſe caſes, after diſſection, neither calculi nor viſcid ſlime have been detected.

III. Icterus *hepaticus*, not attended by pain. It follows diſeaſes of the liver, and is therefore ſymptomatic.

IV. Icterus *gravidarum*, originating from pregnancy, and vaniſhing with parturition, or from the preſſure

preſſure of hardened fæces in the colon, and diſappearing when theſe have been evacuated.

V. Icterus *calculoſus*, attended by acute ſhooting pains in the epigaſtric region and right hypochondrium, which are increaſed after eating, and by evacuation of biliary concretions. It has ſometimes ſtraitened reſpiration, compreſſion of the cheſt, nauſea, frequent efforts of the ſtomach to get rid of its contents, and difficulty of walking upright. The ſickneſs, with inceſſant vomiting, generally precedes the jaundice, which is apt ſuddenly to diſappear, after which gall ſtones are to be diſcovered in the ſtools. For this reaſon Baglivi ventured to ſay, *Si videris icteros ſanatos, ſed recidivos, eos certe a calculo veſicæ felleæ progigni prædicito:* but this rule, as we have ſeen in the preceding ſpecies, will not always guide us right; for in that the attack of jaundice is ſometimes ſudden, tranſitory, and periodical.

This ſpecies of jaundice, I apprehend, is ſeldom if ever an original diſeaſe, but is occaſioned either by icterus *mucoſus*, icterus *ſpaſmodicus*, or icterus *gravidarum*. For when the bile ſtagnates in the gall-bladder, whether that ſtagnation is occaſioned by mucus, by ſpaſm, or by preſſure, biliary concretions may eaſily be formed, by ſubſidence, attraction of the groſſer and homogeneous particles to each other, or by the action of the abſorbents taking up the more fluid parts till the remaining bile becomes a ſolid maſs. Van Swieten informs us

that he has ſeen bile, tenacious like glue, brought up by the action of emetics, after which the jaundice never returned again: and HOFFMANN, in a caſe hereafter to be mentioned, found the gall-bladder filled with black and viſcid bile reſembling pitch. Others have diſcovered this receptacle wholly occupied by one maſs of bile, the external coat of which was ſolid and compact, whilſt the interior coats were ſofter, and at the centre contained liquid bile.

More than a hundred gall-ſtones have been diſcovered in one patient after death, even in caſes where no ſymptoms of jaundice had appeared. HEISTER, diſſecting the body of a woman, found one calculus as big as a walnut, and the common duct ſo much enlarged, that he could thruſt his little finger into it. But one of the moſt uncommon caſes is related by VAN SWIETEN of his mother-in-law. This lady, after repeated paroxyſms of jaundice, was ſuddenly ſeized with a violent pain in the region of the duodenum, followed by ſyncope, which continued only one quarter of an hour. At the end of two days, they diſcovered in the fæces a gall-ſtone large as a joint of the thumb, and two more nearly of the ſame ſize, which, by correſponding impreſſions, appeared evidently to have been formed at the ſame time. Having paſſed theſe calculi, ſhe became free from jaundice. Yet conſiderable as were theſe for magnitude, much larger than

than theſe have been evacuated, which had therefore paſſed the common duct.

Mrs. Floyer, mentioned by Dr. JOHNSTONE in his Medical Eſſays, after excruciating pain and vomiting for ſeven hours, voided a gall-ſtone 1 $\frac{3}{5}$ inch by $\frac{7}{10}$, after which ſhe had exceſſive diſcharge of bile, up and down; yet ſhe had no jaundice.

As neither the gall-bladder nor the common duct is ſupplied with muſcular fibres, when they have been dilated by calculi, they do not readily contract again. In one caſe, recorded in the Edinburgh Medical Eſſays, vol. ii. p. 303, we find the common duct obſtructed by calculi, and the gall-bladder extended to ſuch a ſurpriſing bulk as to contain eight pounds of bile.

Sometimes, when gall-ſtones cauſe irritation, and are yet too large to paſs the common duct, nature in her efforts to relieve herſelf, excites inflammation, ſuppuration, ulceration, and the adheſive proceſs to ſurround the whole with an impenetrable wall, for the boundaries are circumſcribed by effuſion of coagulating lymph, ſo changed in paſſing through inflamed veſſels, that the parietes of the abſceſs become a compact maſs. See Dr. SAUNDERS's moſt intereſting Treatiſe on the Diſeaſes of the Liver. Mr. CLINE has met with caſes where this kind of connexion between the biliary ſack and the contiguous inteſtine having been perfectly eſtabliſhed, large gall-ſtones eſcaped through the

aperture, in conſequence of which the cyſt, being no longer diſtended by bile, contracted. And Dr. JOHNSTONE, in his Medical Eſſays, p. 207, mentions the caſe of Sarah Ewdall, who after violent pain in the region of the gall-bladder, paſſed biliary concretions from an abſceſs at the pit of her ſtomach.

The caſe of my old friend O'Neille, captain general of Aragon, was highly intereſting. When I quitted Spain, I left him labouring under obſtinate *jaundice*. After that time a conſiderable impoſtume appeared in the region of the liver, formed by enlargement of the gall-bladder, which united by the adheſive inflammation with the peritoneum, and thus, when opened by the lancet, gave iſſue to ſeveral biliary concretions, which were of a conſiderable ſize.

He was attended by the moſt able ſurgeons, with whom M. Gimbernat was joined in conſultation, and before they ventured to open the abſceſs, they were ſatisfied that the adheſive inflammation, which was to connect the parts in contact, had taken place. Had they doubted of this, they would have applied cantharides or ſome other irritating ſubſtance to the abſceſs, before they attempted ſuch an hazardous expedient; for had they been miſtaken in their judgment, the contents of the abſceſs would have been diſcharged into the cavity of the abdomen, and the admiſſion of atmoſpheric air into this cavity might have produced inflammation and gangrene

grene on the internal ſurfaces, that is, on the peritoneum, the inteſtines, the omentum, and all the other contents of the abdomen.

It is not the preſence of gall-ſtones in the cyſt that cauſes jaundice, for there, as we have ſeen, they may remain for ever without creating diſturbance in the ſyſtem; but when, by ſneezing, coughing, vomiting, jumping, wreſtling, ſuddenly falling, convulſions, or by any other means, a ſtrong preſſure is made upon the liver, they are brought down into the common duct, they muſt either paſs freely or they will cauſe obſtruction to the natural paſſage of bile into the inteſtines, and produce a jaundice.

VI. Icterus *infantum*, ariſing ſoon after their birth, occaſioned by the meconium, and vaniſhing when that is cleared.

SECTION III.

OF THE INDICATIONS OF CURE IN ICTERUS.

From what has been delivered, it is evident that the indications of cure muſt vary according to the nature of the cauſes which occaſion the ſeveral ſpecies of this diſeaſe. Quacks univerſally preſcribe either to the moſt diſtreſſing ſymptom, or at beſt to the generic character, that is to the name of a diſeaſe and not to the diſeaſe itſelf: but the rational practitioner conſiders, before he ventures to preſcribe, the whole of the diſeaſe in queſtion, with

its cauſes both remote and proximate. He diſtinguiſhes the ſpecies from each other, as characteriſed by their peculiar ſymptoms, and is never ſatisfied till he aſcertains, not merely the preſence of this or that diſeaſe, but by what cauſe it is produced. The importance of ſuch diſtinction is no where more conſpicuous than in caſes of *jaundice*, for which innumerable remedies are offered, but not one of them admiſſible without attention to the ſpecies.

This obſervation can never be too much inculcated on ſtudents; and, although it might with propriety have appeared with others in ſome general introduction to my work, I truſt it will not be thought improper here.

I. Icterus *mucoſus*.

The curative indications are,

1. To evacuate the viſcid mucus from the duodenum.

2. To reſtore tone to the mucous glands.

To anſwer the firſt intention, we muſt have recourſe to emetics, giving from three to ten grains of ipecacuanha with a grain or two of tartariſed antimony every other morning.

The emetics may be followed by cathartics. Theſe however muſt not be draſtic and hydragogue, for ſuch not only defeat our purpoſe by increaſing debility, but by their highly ſtimulating powers they excite the action of the inteſtinal exhalants, and are ſoon waſhed away out of the body.

Small

Small doſes of calomel may be given at night, either alone or combined with aſſa fœtida.

℞ Calomel. gr. iij. Aſſæ fœtid. ℈j. Ol. Cauri. gtt. v. M. f. Pill. vj. h. s. s.

That is,

Calomel three grains, with twenty grains of aſa fœtida, and five drops of oil of carraways, made into pills, and taken at night.

This may be repeated twice a week, and worked off the next morning with rhubarb and ſena, warmed by either cinnamon or nutmeg-water.

℞ Rei, gr. xij. Infuſ. Amar. Purg. ℥iij. M. f. H. m. s.

Or,

℞ Rhei, gr. xij. Tinct. Senæ, ℥j. Aq. Menth. vulg. ℥ij. M. f. H. m. s.

Or, in place of theſe, two ounces of the elixir ſalutis, which is the only genuine *Daffy's Elixir*, may be given in the morning. It is Formula 21 of my Phyſician's Vade Mecum.

Dr. DARWIN has brought away from 30 to 50 ſtones by calomel grains ſix at night, and oil of almonds four ounces in the morning.

The pills recommended by the ingenious Dr. BEDDOES in caſes of urinary calculi, are powerful detergents. To compoſe them you muſt take cryſtals of ſal ſodæ coarſely pounded, and expoſe them to a warm dry air, till they crumble into a white powder. Seven

drams of this with one ounce of ſoap being made into pills, the doſe may be from ten to twenty grains twice a day.

No medicine has been more univerſally recommended by the moſt eminent practitioners, and no one can be more worthy of the reputation it has hitherto maintained than tartariſed kali.

Of this, from one ſcruple to a dram may be given twice or three times a day, either alone or combined with rhubarb. Dr. Nicolai, recommending among other aperient ſubſtances this compoſition, ſays of it, *Egregiam exſerit efficaciam in* ICTERO, *ſi a ductuum biliarum obſtructione* QUAM MATERIA TENAX ET SPICA PRODUIT, *oritur.*

℞ Rhei, ℈ſs. Kali. tartariſat. ʒj. Confect. Aromat. ℈j. Aq. Menth, vulg. ʒij. M. f. Hauſt. 8. q. h. s.

That is,

Rhubarb ten grains; tartariſed kali a dram; aromatic confection a ſcruple; mint water two ounces. To be taken three times a day.—Sir Edward Hulſe uſed to give a ſcruple of ſal volatile cornei cervi in mint water three times a day.

Either the ſulphur and cream of tartar in Formula 18 of my Vade Mecum, or the electuary of brimſtone, elecampane, and liquorice, with honey, as recommended in catarrh, is an excellent detergent, cleanſing the alimentary canal from viſcid mucus; and, as all the articles in this preſcription are diaphoretic, they powerfully determine to the ſur-

face, and prevent the ſuperabundance of mucus in the duodenum. Dr. Ingenhouſz aſſures me that he cured himſelf of gout and jaundice by aqua mephitica alkalina.

In the Canary iſlands, where jaundice is prevalent, M. Betancourt ſeldom fails to cure it in a few weeks by means of emetics, followed by pareira brava. Of this he makes a decoction, putting an ounce of the root to eight pints of water, and reducing it thus to ſix pints. The doſe is half a pint three times a day, which proves highly *diuretic*. I have ſent for ſome of it to M. Wilſon on Snow-hill, and mean to take the firſt opportunity of trying it, on the credit of M. Betancourt, to whom I am indebted for this information.

After having cleanſed the firſt paſſages, we muſt have recourſe to tonics and aſtringents, for ſhould we proceed with evacuants, we ſhould not only debilitate the ſyſtem and deſtroy the tone of the mucous glands, but we ſhould eſtabliſh a determination of the fluids to thoſe glands, and cauſe them to acquire a habit of ſuperabundant ſecretion, thereby increaſing the diſpoſition to jaundice.

A powerful tonic, and the moſt proper in cachectic caſes, more eſpecially in jaundice, is iron; of the beſt form of it, in the opinion of both Sydenham and Hoffmann, is that of filings, of which from five to twenty grains may be given at a doſe. Hoffmann combined it with vitriolated kali, ordering as follows;

℞ Limat.

℞ Limat. Ferri. dr. 2. Kali vitriolat. ſcr. 2. Ol. Menth. gtt. 6. M. f. Pulv. c. c. dr. ½ bis die.

Hoffmann was very partial to his *tinctura martis pomata et cydoniata*, which are excellent preparations, combined with the peruvian and caſcarilla barks, but he condemns bitters, and aſſures us that by long experience he had found them detrimental.

As a deobſtruent and tonic in jaundice no medicine is to be compared to horſe exerciſe. This ſupplies the place of emetics and cathartics in ſeparating viſcid mucus from the inteſtines; and, promoting inſenſible perſpiration, it prevents determination to the mucous glands. Van Swieten judiciouſly obſerves, that for want of exerciſe the ſtomach and bowels become internally coated with tough phlegm, but that by increaſed reſpiration and alternate action of the abdominal muſcles, theſe viſcera are ſhaken, preſſed, and ſcrubbed, as it were, by attrition, ſo as to be effectually cleanſed. *Ventriculus et inteſtina, lento glutine in interna ſua ſuperficie obducuntur: valido motu dum corpus exercetur, reſpiratio aucta diaphragmatis et muſculorum abdominalium actione reciproca omnia hæc viſcera movet, premit, ad ſe mutuo quaſi affricat; et ſic deturguntur omnia*, § 69.

Hoffmann ſtrongly recommends a *journey*, not merely for the ſake of air and exerciſe, but for the cheerfulneſs, the change of ſcene, and the diſtance interpoſed between the man and his domeſtic cares, for

for in jaundice he regards tranquillity of mind as moſt eſſential to a cure.

II. Icterus *ſpaſmodicus.*

The curative indications are,

1. To relieve the ſpaſm.

2. To obviate its recurrence.

The firſt intention may be anſwered, 1. By removing, when it is poſſible, the morbid ſtimulant, ſuch as worms, by anthelmintics; viſcid mucus and acrimonious bile by gentle emetics and cathartics, more eſpecially by *caſtor oil*; and the mental ſtimuli, particularly anger, by moral arguments. But all violent emetics and cathartics muſt be carefully avoided, becauſe they increaſe the ſpaſm.

2. When the ſtimulants applied to the inteſtines are not removeable by the milder evacuants, their power muſt be weakened by diluents and demulcents, ſuch as warm liquids, and emulſions made with linſeed, oil of almonds, ſpermaceti, and gum arabic, as in the ſeveral Formulæ of my Phyſician's Vade Mecum, in the claſs *demulcents.*

3. When the ſpaſm is occaſioned by ſome general ſtimulant, ſuch as venom communicated by the bite of animals, which can neither be removed nor yet relieved by diluents and demulcents, we muſt have recourſe to more powerful ſtimulants. Theſe are aſa fœtida, camphor, muſk, ether, opium, electricity, and heat, of which the former will be

found in my Vade Mecum, under the claſs of antiſpaſmodics. In this claſs the moſt powerful agent is electricity. Dr. Darwin informs us, that a gentleman, who for jaundice had taken emetics, mercury, bitters, ſteel, eſſential oils, and ether, without benefit, was cured by ten ſmart ſhocks of electricity from a quart phial taken through the liver.

A certain degree of heat, that is a genial warmth of about 96° or 97°, is friendly to the ſyſtem, and efficacious in relieving ſpaſm. This may be applied either in a bath; by carminative, demulcent, antiſpaſmodic clyſters, by fomentations to the part, or by all of them ſucceſſively. The fomentation may be with chamomile flowers, or a plaſter may be made with treacle, expreſſed oil of nutmegs, and ſpermaceti in equal parts, and camphor for the pit of the ſtomach. The clyſter may be made with milk, oil, ginger tea, and ſome drops of laudanum. The ſecond intention requires tonics and aſtringents, cold bathing, bitters, bark, and ſteel.

℞ Cinchon. ℥j. Ferri tartariſat. ℥ſs. Pulv. Aromat. ʒiij. Conſerv. Cort. Aurant. ℥ij. Syr. Zinzib. q. s. M. f. Elect. c. c. M. N. M. bis die ſuperbibend. Cyath. Infuſ. ſeq.

℞ Quaſſiæ, Rad. Columb. aa ʒſs. Caſſiæ Lign. ʒj. Aq. fervent. ℔j. Macera per noctem et cola. Colaturæ, adde Eſs. Lignor. ʒſs.

That is,

Bark one ounce; tartariſed iron half an ounce; aroma-

tic

tic ſpices three drams; conſerve of orange peel two ounces; ſyrup of ginger ſufficient for an electuary. Take the ſize of a nutmeg twice a day with a cup of the ſubſequent infuſion.

Take quaſſia and columba root, of each half an ounce; caſſia lignea, one dram; boiling water a pint. Steep for a night and ſtrain; add to this eſſence of the woods half an ounce.

Or in place of the above electuary, either of the Formulæ 77, 78, 80, 81, 82, 83, in my Vade Mecum, may be uſefully ſubſtituted.

III. Icterus *hepaticus*. Dr. Cullen conſiders as incurable.

IV. Icterus *gravidarum*. If from pregnancy, it vaniſhes on parturition; if from hardened fæces in the colon, it is cured by clyſters and cathartics.

V. Icterus *calculoſus*. The curative indications are pointed out by nature in her efforts to relieve herſelf; for when a gall-ſtone paſſes with difficulty inceſſant vomiting is excited to expedite its paſſage, and if either the pain or the ſtraining to vomit is exceſſive, both which occaſion ſpaſm, ſyncope enſues, and then moſt commonly the biliary concretion paſſes, for in ſyncope ſpaſmodic action ceaſes, and every fibre is relaxed.

Hence the only indications are, in imitation of nature, 1. To produce, by emeties, repeated concuſſion of the viſcera. 2. To aſſiſt the free paſſage of

of gall-ſtones, when needful, by antiſpaſmodics, preciſely as in ſpaſmodic jaundice. We muſt give camphor, Hoffmann's anodyne, and opium. We muſt have recourſe to warm bathing and fomentations, with antiſpaſmodic and emollient clyſters. And we may ſafely paſs ſhocks of electricity through the region of the liver.

When the gall-ſtones are paſſed, if their formation was occaſioned either by icterus mucoſus, or by icterus ſpaſmodicus, we muſt give tonics and aſtringents, as in thoſe ſpecies, to prevent the recurrence of the diſeaſe.

VI. Icterus *infantum* is ſpeedily and effectually cured by clearing the meconium.

SECTION IV.

CASES OF JAUNDICE.

Case I.

A. M. aged 40, of a relaxed and irritable habit, was attacked by jaundice, at the firſt approach of which he obſerved morſels of undigeſted food to have paſſed by ſtool, then fulneſs in the epigaſtric region, followed by white ſtools and yellow urine. An emetic brought up the half digeſted food of two days, and with this ſome morſels of veal perfectly unchanged, which he had eaten the firſt of theſe days for dinner. By two grains of calomel, taken every night, in four days he evacuated much *viſcid mucus*, his

his urine became limpid in the night, although very yellow through the day, but by two doſes more of calomel, followed by tincture of rhubarb, he had many proper ſtools, followed by one of pure mucus reſembling jelly, after which, by horſe exerciſe he was perfectly reſtored to health.

Three years from this period, in the beginning of February, after having been frequently wet in riding, he was ſeized with pain in the right breaſt, of the ſame kind as uſually preceded *gaſtrodynia flatulenta*, to which he had been ſubject. He took an emetic, threw up a tea-cupful of pure bile, and was free from pain: but his ſtools became white and his urine yellow. He had again recourſe to calomel, but without any effect, till he increaſed the doſe to ten grains at night, followed by an aloetic and alkaline cathartic in the morning. Theſe produced a copious evacuation of the alvine fæces, followed by about a pint of pure mucus reſembling jelly, beſides much which was extremely viſcid. From this time the ſymptoms were alleviated, and by moderate cathartics the diſeaſe appeared to be perfectly removed.

In the beginning of May in the ſame year he was able to walk from twelve to fourteen miles a day without fatigue, till he happened to go ten miles with a ſcorching ſun in front, and a cold north wind behind, by which he was much exhauſted, and the next day perceived at dinner ſuch convulſive motions in his under-lip, that whilſt eating it was inceſſantly drawn in between his teeth. At night he was reſtleſs, and the next day had white ſtools, yellow urine, conſtant chilline ſs, with a ſlow pulſe, and ſo weak as ſcarcely to be perceived. Strong cathartics were reſorted to with conſiderable doſes of calomel, followed by tartariſed kali, all which brought away much *viſcid mucus* and relieved the ſymptoms; but they ſpeedily returned. He had then frequent occaſions to remark limpid

pid urine by night, although by day his water was ſtrongly tinged with bile.

In this ſituation he applied to Dr. Fothergill, of Bath, who conſidering that merely to evacuate the viſcid mucus left the glands relaxed to pour forth a freſh ſupply, reſolved to try the tonic plan. With this intention he gave ſteel, columba root, and aromatics, which ſoon perfected a cure.

Case II.

A counſellor aged 37, after protracted grief, took to a ſedentary life, and inſtead of wine, his uſual beverage, drank ſpirits in too great abundance. The conſequence was, that with ſlow fever he loſt his appetite and became icterical. After various remedies had been tried in vain, he took two emetics, each compoſed of tartariſed antimony one grain, with fifteen grains of ipecacuanha, and was perfectly reſtored to health.

Some years after this, *jaundice* returned again with greater violence than before, his ſpittle became yellow, and every thing taſted bitter. He became coſtive in the extreme, and when he had ſtool by clyſters, the fæces were compact as clay: his urine was brown, and let fall a thick and copious ſediment. Rhubarb, bitter extracts, balſams, ſedatives, and antiſpaſmodics, all excited nauſea, and even vomiting.

In this ſituation the only medicine he could bear was a mixture of glauber ſalts, nitre, vitriolated kali, and crab's claws, in wine and water with lemon juice, in ſmall but frequent doſes. He had a cataplaſm at the region of the liver compoſed of wormwood (*artemiſia abſinthium*), water germander (*teucrium ſcordium*), chamomile flowers, and cummin ſeeds, boiled in wine. This was applied warm, and when cooled was frequently renewed.

At

At the end of two months, he had a ſpontaneous diſcharge of alvine *fæces, dry, clay-coloured, and moſt abundant*, which continued for four days, when they began to aſſume a yellow colour, and he ſoon recovered health, appetite, and ſtrength.

Hoffmann remarks upon this caſe, that he has always obſerved cataplaſms and fomentations highly beneficial in obſtinate jaundice, and frequently attended with inſtantaneous relief of all the ſymptoms, which have reverted on the omiſſion of theſe external applications.

Case III.

Baron Van Swieten in his Commentaries relates the caſe of an old lady aged 60, who had been icterical for twelve years. At firſt the paroxyſms were periodical, but latterly it was a confirmed and continued jaundice tinging the whole body black, except the eyes, which were of a deep yellow.

By his orders ſhe perſiſted for two years in the uſe of whey with juice of graſs in ſpring, Spa water in ſummer, and honey with ſoap in winter.

At the end of eighteen months a copious evacuation of argillaceous and moſt offenſive matter, interſperſed with calculi, ſucceeded, and continuing for ſix months, with a manifeſt relief of all the ſymptoms, ſhe was perfectly cured. It muſt be added, that to ſupport her ſtrength, the profeſſor indulged her with a generous diet.

Case IV.

A gentleman aged 50, ſedentary and accuſtomed to good living, yet mixing with a generous diet much milk and

acid fruits, became, after protracted grief, cachectic. His countenance was livid and much ſuffuſed with bile; he loſt his appetite and ſtrength; ſuffered much by flatulence and borborygmi in his bowels; had difficulty of breathing, and complained of coſtiveneſs. His pulſe was weak, ſometimes intermittent, and always unequal. *Jaundice* followed with ſwelling of his feet, and after a time he became hydropic.

For this complaint he called in a phyſician, famous for the cure of dropſy, who gave him an extract of *elaterium* and *enula* one dram, which being repeated, evacuated both up and down a great quantity of *viſcid mucus* (*ανω και κατω fortiter expurgabatur ingens viſcidi copia*), and diminiſhing the ſwelling of his feet, left him with a hope of being ſpeedily reſtored to health. But as the appetite for food did not return, Hoffmann was conſulted, who ordered balſamics and corroberants, which came too late.

On diſſection, water was diſcovered in his cheſt; and biliary concretions, one of which weighed three drams, were taken from the gall-bladder. The liver and ſpleen were flaccid, and the blood in them was very black.

Case V.

A lady aged 30, thin, of the *ſanguineo choleric* conſtitution, and of an *irritable* temper, ſedentary and imprudent in her diet, having been for three months obſtructed, was ſeized with ſuch acute pain in the hypogaſtric region, that ſhe could ſcarcely hold herſelf upright. This ſymptom was followed by a bilious diarrhœa, which, being ſtopped, was ſucceeded by heart-burn and frequent ſyncope. After ſome days her countenance and urine became yellow, her ſtools white, and ſhe had acute pain at the pit of her ſtomach.

Hoffmann

Hoffmann being conſulted, ordered his anodyne with eſſence of ſaffron, caſtor, and orange-peel, in equal quantities, and ſome drops of oil of mace, of which mixture ſhe took 30 drops every three hours, applying at the ſame time *antiſpaſmodic* fomentations to the region of the liver. After three days he gave her two ſcruples of rhubarb, with one ſcruple of cream of tartar and ſix grains of nitre. For her common drink, he ordered milk and water. By perſeverance in this regimen ſhe was perfectly relieved from all her diſtreſſing ſymptoms.

Case VI.

A lady aged 60, of a phlegmatic habit, had rheumatic pain for near twelve months in her right ſhoulder; but for two months this pain appeared to be transferred to the right ſide under the falſe ribs, where for ſix weeks it continued to ſuch a degree, that ſhe could neither ſneeze nor ſcarcely breathe. Her countenance was livid, her ſtools white, her urine thick and tinctured with dark brown. After a time this pain ſuddenly vaniſhed, and the patient perceived an exploſion in the affected ſide, which brought a bitter taſte into her mouth, and communicated the ſame to every thing ſhe eat. In this ſituation ſhe took an emetic, brought up an amazing quantity of bile, ſoon after which her ſtools became tinctured again with yellow.

Case VII.

A lady aged 42, of moderate ſtature, and of ſanguine temperament, ſedentary, and a coarſe feeder, enjoyed her health, till about ten years ſince ſhe was expoſed during menſtruation to ſeverity of cold. From this time her monthly diſcharge became irregular in all reſpects, in duration, quantity, and periods, and at the end of two years

ſhe was attacked by *jaundice*. This by proper treatment was removed, but returned in half a year, and attacked her commonly without the leaſt warning every month. Yet the laſt paroxyſm was preceded by theſe ſymptoms; ſhe had acute pain in the back and between the ſhoulders, with coſtiveneſs; vomiting ſucceeded; and then her ſkin became ſuffuſed with jaundice.

Hoffmann ordered exerciſe with abſtinence from dried and ſalted meats, gave her broth with the juice of graſs, chicory and aſparagus, and for her common drink he recommended a decoction of china root, with ſarſaparilla. He perſuaded her to take rhubarb, with aperitive ſalts alternately every day; between her meals he gave his balſamic elixir, and about the monthly period he ordered his anodyne with eſſence of ſaffron, caſtor and amber, three times a day. When at any time ſhe had pain and *ſpaſm*, with flatulence, he cauſed a carminative emollient clyſter to be injected. By theſe means the paroxyſms of jaundice were rendered leſs frequent, till they ceaſed in the perfect eſtabliſhment of health.

Case VIII.

A boy aged 12, after eating immoderately of unripe grapes, was ſeized with bilious fever, ſucceeded by *jaundice*, in which a hard ſwelling was perceived in the region of the liver; his urine reſembled ink, and the alvine fæces for three days were black. Hoffmann ordered abſorbents with rhubarb and a ſmall quantity of nitre in ſmall doſes, to be frequently repeated. He gave butter-milk for his common beverage, and cauſed the cataplaſm deſcribed in Caſe II. to be extended over the right hypochondrium, and thus in a ſhort time he perfected a cure.

Case IX.

A gentleman aged 40, who from his youth had been devoted to Bacchus, and had never loſt an opportunity of proſtrating himſelf before the altars of the Cyprian goddeſs, in recompence for all his ſervices, became debilitated and afflicted with the gout. This gentleman, after a fit of anger, was ſuddenly attacked by *jaundice*, with the moſt diſtreſſing ſymptoms; for at intervals he was tormented with moſt agonizing pain in the ſtomach about the pylorus, attended with cold ſweats and a total loſs of appetite. By degrees, the yellowneſs of his ſkin was turned to black, and being repeatedly put into a warm bath, all the *ſpaſmodic* ſymptoms were not only aggravated, but extended to the urinary bladder, more eſpecially at night, producing an *iſchuria*. *Atrophy* ſucceeded, with extreme debility and coldneſs of the extremities; all which went on increaſing, till he paid the laſt debt of nature.

Hoffmann, on diſſection, found the inteſtines of a dark colour, and much inflated; the urinary bladder thickened and covered with black ſpots; the liver hard and greeniſh in appearance; the gall-bladder black and filled with a viſcid humour reſembling pitch; the cyſtic duct much ſtraitened, and the duodenum with the pylorus, and part of the colon, tinged of an obſcure yellow, and corroded in their external coats.

Case X.

A beautiful lady of high faſhion, of the ſanguine temperament and delicate complexion, when pregnant with her firſt child, about the eighth month, became icterical, and ſo continued till ſhe was delivered of her child. Soon

after a ſecond conception, *jaundice* returned, and continued obſtinate for ſome time after her delivery.

Hoffmann being then conſulted, had occaſion to obſerve, that his patient indulged herſelf in indolence and ſleep, that ſhe drank too much wine with the moſt nutritious ale, and that ſhe was habitually coſtive. He therefore reſtrained her drink to wine and water; and, conceiving this affection to ariſe from *plethora*, he cauſed her to be blooded about the third or fourth month of pregnancy, and again the ſeventh and the ninth. When coſtive ſhe took rhubarb, and thus ſhe was enabled to preſent her huſband with three ſons, without the leaſt return of jaundice.

Hoffmann in his fourth volume records a curious caſe of ſtubborn jaundice, cured wholly by the repetition of emetics.

Genus LXXXIII.

Green-Sickneſs.

The ſymptoms are diſcoloration, or livid paleneſs of the ſkin even of the lips, laxity and flaccidity of the muſcles, with fullneſs of the veins, and œdematous ſwelling of the feet; remarkable whiteneſs in the tunica albuginea; pulſe frequent, ſmall, and feeble; extreme laſſitude, dyſpnœa and palpitation, attending muſcular exertion, particularly in going up ſtairs, which is followed ſometimes by

ſyncope;

ſyncope; general debility, mental torpor, and univerſal coldneſs, dyſpepſia, flatulence and coſtiveneſs; appetite both deficient and depraved; pain in the back and loins; amenorrhœa. Van Swieten thus briefly and elegantly defines this diſeaſe. *Chloroſi laborat debilis puella totum corpus laxo ædemate tumet; pallent et frigent omnia.*

SECTION I.

OF THE CAUSES REMOTE AND PROXIMATE OF CHLOROSIS.

THE occaſional cauſes are, Inactivity; poverty of diet, with acids, viſcid aliments, and a ſuperabundance of watery or of unfermented vegetables; impure air; humidity; ſtifled anger, fear, terror, and protracted grief; ungratified deſires and hopeleſs love; exceſſive evacuations, whether by hæmorrhage, or the operation of emetics and cathartics; previous diſeaſes, particularly fevers, and ill cured intermittents; and ſtoppage of the catamenia, by whatever cauſe produced, for this ſymptom of the diſeaſe in queſtion is both effect and cauſe.

Hoffmann, for the proximate cauſe, aſſigns a depraved ſtate of the fluids ariſing from loſs of tone in the ſolids, and more particularly in the chylopoetic veſſels.

In this opinion he diſcovers his uſual ſagacity,

for the cauſe here aſſigned accounts for all the ſymptoms. They continue as long as this ſubſiſts, and this being removed, they vaniſh. With this alſo the occaſional cauſes perfectly agree, for all of them, without exception, tend to deſtroy the tone of the ſtomach, and thereby to deprave the fluids, which derive their properties from the action of the ſolids. But beſides this affection of the ſtomach, there is certainly a conſiderable degree of torpor in the lymphatic ſyſtem, as appears by the univerſal increaſe of bulk, and by the œdematous ſwelling of the legs. We obſerve alſo remarkable debility in that organ which gives motion to the blood; for we have the venous plethora, which is produced by diminiſhed energy of the heart when unable to overcome the elaſticity of the arteries, and to diſtend them to their natural ſize. And, as a direct evidence of deficient energy with want of excitement in the heart, we have the frequent, ſmall, and feeble pulſe. When, in addition to all that has been hitherto ſuggeſted, we conſider the mental torpor, the livid colour, and the loſs of vital heat; can we heſitate in aſcribing all theſe ſymptoms to deficient *oxygenation* of the blood?

The conſent between the ſtomach and the lungs has been frequently inſiſted on; and in chloroſis calls for particular attention. A vaſt variety of ſubſtances, applied immediately to the ſtomach, have the power, as I have fully ſtated, of exciting the action

action of the lungs and of assisting them to oxygenate the blood: and the lungs, when they supply the system with a sufficiency of oxygen, thereby assist the stomach in its office of digestion. But when the blood is well oxygenated, the absorbents are excited to more vigorous action; vital energy is increased in the heart and arteries; the spirits rise, cheerful activity succeeds to indolence and gloom, the countenance regains its florid hue, and a genial warmth is diffused over the system.

SECTION II.

OF THE INDICATIONS OF CURE IN CHLOROSIS.

From this view of the proximate cause, the indications of cure will be,

1. To obviate the occasional causes of the disease.

2. To restore tone to the stomach and intestines.

3. To administer vital air.

Hippocrates and all his followers have observed, that in certain cases of chlorosis, marriage is the only cure. In other cases it is sufficient to change the air, take exercise, adopt a more generous diet, and to regulate the passions. It is thus that the first intention may be answered.

To anſwer the ſecond intention we begin with an emetic, which may be followed by gentle cathartics to clear away viſcid mucus from the firſt paſſages. For in chlorotic caſes, this never fails to be collected, and when preſent, not only either cauſes or aggravates all the ſymptoms, as I have fully explained in treating hypochondriaſis, and in fixing the proximate cauſe of melancholia; but, by interpoſing a tenacious ſubſtance between the living fibre and the medicines received into the ſtomach, it effectually prevents a cure. This Van Swieten has well ſtated thus: *Dato prius leni vomitorio, vel purgante ex pillulis Ruffi vel ſimilibus,* SABURRA MUCOSA *in primis viis hærens eductitur, ne aliorum medicamentorum efficaciam impediat.* Hoffmann, to cleanſe the ſtomach and the inteſtines from what he calls *cruditates, viſcidæ, mucidæ, acidæ,* orders either vitriolated or tartariſed kali to be frequently repeated: and if the bowels are not ſufficiently cleared by theſe, he recommends myrrh, gum ammoniac, rhubarb, extract of wormwood, cinnabar, amber and ſalt of amber, in equal parts, of which two drams made into twenty pills may be given at a doſe, either increaſing or diminiſhing the quantity as occaſion may require. Should the coſtiveneſs be obſtinate, he would adviſe the following:

℞ Mannæ Elect. ℥ij. Cremoris Tartari, ʒj. Rhei et Nitri, pur. ʒſs. Aq. font. ℥viij. M. f. H. m. s.

That

That is,

Manna two ounces; cream of tartar a dram; rhubarb and nitre of each half a dram; water eight ounces. To be taken in the morning.

To reſtore the tone of the ſtomach, Hoffmann recommends an elixir to be made with myrrh, amber, ſaffron, orange-peel, and the extracts of gentian, wormwood, carduus benedictus, and the leſſer centaury, not in ſpirit, but in weak lixivium of tartar.

Theſe bitters are certainly poſſeſſed of tonic powers; but the moſt efficacious medicine is *ſteel*, which in chloroſis ſeldom fails to cure. Van Swieten, after clearing the inteſtines from mucous ſaburra, ordered a medicated wine with aromatics and ſteel filings, of which he elegantly ſays, *Dum his utitur; incipit oriri major calor, levis quaſi febricula; quotidie incipit ſubſidere laxus partium omnium tumor et redit amænus rubor in cute, labiis, et gingivis.* Hoffmann had adopted preciſely the ſame practice, and gives diſtinctly the ſame character of ſteel. The two forms preferred by him were iron filings ſprinkled with rain water and expoſed to the heat of the ſun, till the whole becomes a ruſt; and the other form is a martial tincture made with iron filings in cider expoſed to the ſolar rays.

Dr. Griffith in this diſeaſe gave his myrrh and ſteel mixture according to the formula already mentioned

mentioned under the treatment of phthiſis in the preceding volume.

The formulæ 77, 78, and 82, of my Vade Mecum, are excellent in this diſeaſe, but in 77 the bark may be omitted.

All theſe preparations will be rendered much more active and efficacious if the patient inſpires highly oxygenated air, and takes ſufficient exerciſe. Vide the letters publiſhed by Dr. Beddoes, from Drs. Thornton, Carmichael, &c. printed for Johnſon, St. Paul's Church-yard.

Claſs

Claſs IV. LOCALES.

LOCAL DISEASES.

The diſtinctive character of this claſs is,

Morbid affections, which are partial.

The orders of this claſs are eight.

1. *Dyſæſtheſiæ.* 2. *Dyſorexia.* 3. *Dyſcineſiæ.* 4. *Apocenoſes.* 5. *Epiſcheſes.* 6. *Tumores.* 7. *Ectopia.* 8. *Dialyſes.*

Of which the pathognomic ſymptoms follow:

1. DYSÆSTHESIÆ.

The ſenſes injured or deſtroyed by the imperfection of the organs.

2. DYSOREXIA.

The appetites deficient or depraved.

3. DYSCINESIÆ.

Motion impeded or depraved from an imperfection of the organ.

4. APOCENOSES.

Superabundant flux of blood, or humours without pyrexia.

5. EPISCHESES.

5. EPISCHESES.

Suppreſſion of excretions.

6. TUMORES.

Partial ſwellings without inflammation.

7. ECTOPIA.

Parts diſplaced.

8. DIALYSES.

Solution of continuity.

Claſs IV. LOCALES.

Order I. DYSÆSTHESIÆ.

THE ſenſes injured or deſtroyed by the imperfection of the organs.

In this order we have nine genera.

1. *Caligo.* 2. *Amauroſis.* 3. *Dyſopia.* 4. *Pſeudoblepſis.* 5. *Dyſecœa.* 6. *Paracuſis.* 7. *Anoſmia.* 8. *Ageuſtia.* 9. *Anæſtheſia.*

Genus

Genus LXXXIV. *Caligo.*

Darkneſs.

SIGHT diminiſhed or deſtroyed by the interpoſition of a dark body between the object and the retina.

In this genus Dr. Cullen includes five ſpecies.

1. *Caligo lentis. Cataract.* The ſymptoms are, opacity behind the iris in the poſterior chamber of the aqueous humour, to be diſcovered by inſpection; the iris contracts by a ſtrong light, and in the ſhade expands; viſion is leſs perfect in proportion to the quantity of light reflected from an object; minute objects appear to be covered with a miſt increaſing in denſity, as the opacity extends.

In the incipient ſtate, or even previous to the appearance of the cataract, there is ſometimes headach; and the approach of the diſeaſe is announced by *muſcæ volitantes.*

This opacity may be either in the cryſtalline lens itſelf, or in its capſule; or it may ariſe either from a membrane formed in the poſterior chamber of the aqueous humour; and therefore eaſily to be diſtinguiſhed by inſpection, or from portions of inſpiſſated pus floating in the aqueous humour, and moveable by the ſlighteſt inclination of the head.

The

The latter conſtitute the ſpurious cataract; the former only is the genuine.

The occaſional cauſes of cataract are commonly external violence, ſudden expoſure to great heat after cold, and to ſtrong light after obſcurity. From theſe laſt circumſtances it may perhaps ariſe, that cataracts abound in Spain, more eſpecially at Madrid, where my friend Gimbernat extracted more than a hundred in one year. In addition to theſe cauſes we may remark from Lommius, as quoted by Hoffmann, that in ſome caſes cataract originates from affections of the ſtomach, and this ſeems to be rendered in ſome meaſure probable, when headach precedes a cataract.

In ſome caſes the lens has ſpontaneouſly recovered its tranſparency. Mr. Wathen mentions two cataracts in one patient having been thus diſperſed, after continuing 18 years. It is well known, that the capſule is abſorbed after a cataract has been extracted, and that after couching nature ſometimes excites the action of the abſorbents to carry off, as an extraneous body, the cataract itſelf. The ſame effect is often produced by external inflammation of the eye, and for this reaſon it is that cataracts occaſioned by contuſion are more frequently abſorbed, than thoſe which proceed from conſtitutional affections. Sometimes indeed it happens, as in the caſe of one of our princes, that from external inflammation the abſorbents carry off

off both the cryſtalline and the vitreous humour, leaving only a bag of water.

It was upon this principle that my friend WATHEN PHIPPS, to cure a cataract, which it was not proper to extract, excited violent inflammation in the eye by means of corroſive ſublimate, and thus cauſed the diſeaſed lens to be perfectly abſorbed. His grandfather records a caſe, in which the operator being obliged to deſiſt, becauſe he could not fix the eye; in about a fortnight from that time the patient began to ſee a little, and in leſs than a month perfectly recovered his ſight.

As to the medical treatment of cataract little can be ſaid. It has certainly been cured by electricity. As this effect muſt in all caſes have been produced by the abſorbents, calomel, which excites their action, ſeems to promiſe ſome relief, but I do not recollect of having ſeen it tried.

When medicines fail, the only hope is from extraction. In ſuch circumſtances the firſt point to be determined is its fitneſs for the operation, on which we are aſſiſted in our judgment by the publications of Mr. Wathen, who in this line is the moſt experienced practitioner in Europe. He obſerves that if the eye can diſcern a bright light, and if on ſudden expoſure to light the pupil contracts, if the eye retains its natural ſize and figure, if the cataract is not red, blue, yellow, brown, or of a ſnowy whiteneſs, but of a pearl or light grey colour, and if it was preceded not by ſenſations like

thoſe produced by flies moving before the eyes, but by a miſtineſs hanging over objects and increaſing with the diſeaſe: in theſe circumſtances the cataract is in a fit ſtate for operation, but in oppoſite circumſtances the caſe muſt at leaſt be doubtful.

As to the mode of operation, I ſhall not here repeat, what in his works he has clearly pointed out, but having had frequent opportunities of ſeeing him extract, I am decidedly of opinion, that no country practitioner ſhould ever preſume to undertake the operation, nor any chirurgeon, even in great cities, who is not almoſt in the daily habit of performing it.

2. Caligo *Corneæ.* The cornea is compoſed of many lamina, which are liable to be ſeparated by ſtagnant lymph, and this according to the quantity may produce either ſemi-pellucid ſpecks, or perfect and complete opacity. Specks may be removed with ſafety by means of lapis calaminaris and ſugar in equal parts, either blown upon them through a ſmall quill, or applied with a pencil bruſh. The leucoma, if extenſive, may require cathartics with calomel to excite the action of the abſorbents, and as aſtringent applications to the part to brace the relaxed veſſels.

An *hernia* of the cornea, with prolapſus of the uvea, called *ſtaphyloma*, requires aſtringents. M. Gimbernat, of Madrid, has cured many by dropping three times a day a few drops of a very ſtrong cold

infuſion of myrtle leaves into the eye, keeping the bowels ſoluble by cooling cathartics, and making the patient avoid ſpices, ſpirits, and whatever increaſes the motion of the fluids.

Sometimes the cornea is ſuffuſed with blood, when there are no ſymptoms of inflammation, as may be ſeen in ſcrophulous ſubjects. In this caſe our dependence muſt be on tonics and aſtringents externally and internally applied.

Excreſcences from the cornea may be taken off by a thread, by the knife, or by an eſcarotic, which may be compoſed of ſugar, ten grains to one grain of alum finely powdered; after which the eye muſt be waſhed for ſome days with brandy and water, then with the following aſtringent collyrium.

℞ Zinci vitriolati, ʒj. Aq. Roſar. ℔j. M. f. Solutro. Cola.

That is,

White vitriol a dram, diſſolved in a pint of roſe water and filtrated.

Or the following, adopted from the Germans, may be perhaps preferred:

℞ Margarit. ℈j. Ceruſſæ acetat. gr. vj. Zinci vitriolati, gr. iij. Aq. Roſar. Aq. Plantaginis, aa ʒj. M.

That is,

Mother of pearl one ſcruple; ſugar of lead ſix grains; white vitriol three grains; roſe water and plantain water, of each one ounce.

3. Caligo *pupillæ*. The cloſing of the pupils, which may be occaſioned by inflammation of the iris.

4. Caligo *humorum*. This may be produced either by effuſion of blood, of pus, or of milk, as mentioned by Haguenot, into the chambers of the eye; by deficiency of aqueous humour; by its morbid abundance, as in dropſy of the eye; or by diſſolution and diſorganiſation of the vitreous humour, which is the amauroſis ſynchiſi of Sauvage.

5. Caligo *palpebrarum*. In this ſpecies the eyelids may be fixed to the eye by the adheſive inflammation; or the two lids may be united by the ſame proceſs; or the ſuperior lid may be cloſed either by palſy of the muſcle, called *elevator* palpebræ ſuperioris; by tubercles and warts thickening the membranes; by fleſhy excreſcences, by ſteatomatous tumours, or by cancer.

Theſe five include the twenty ſpecies of Sauvage, not excepting his calligo *venerea*, although unnoticed by Dr. Cullen. True it is, that the infants of proſtitutes and of women infected with the lues, often ſuffer blindneſs; but then this blindneſs is not of any particular ſpecies, for it may ariſe either from cataract, or from morbid affections, either of the cornea or of the humours of the eye.

Genus

Genus LXXXV. *Amauroſis.*

Gutta Serena.

SIGHT diminiſhed, or deſtroyed, without viſible injury to the eye: the pupil moſtly dilated and immoveable.

SECTION I.

OF THE HISTORY OF AMAUROSIS.

AMAUROSIS ſometimes comes on ſuddenly, more eſpecially if produced by violence, whether by concuſſions or by wounds. Sometimes the ſight is gradually loſt, as in old people and in paralytic ſubjects. Sometimes again the gutta ſerena is periodical, rapid in its progreſs, and continues only for a few hours or days, after which it ſuddenly and ſpontaneouſly departs, yet frequently returns, as may be obſerved in hyſterical and in parturient women. Sometimes we find it aſſociated with head-ach, vertigo, ſleepineſs, and ſinging in the ears: at other times it appears unconnected with theſe ſymptoms.

It is commonly preceded by the appearance of duſt, cobwebs, and flies, called *muſcæ volitantes*, and when recent has viſion the cleareſt in a ſtrong light.

SECTION II.

OF THE PROXIMATE CAUSE OF AMAUROSIS AND DISTINCTION INTO SPECIES.

THE proximate cauſe of amauroſis is, interruption of the nervous influence in the optic nerve or retina, which may be either perfect or imperfect.

Sauvage enumerates ſeventeen ſpecies of this diſeaſe; but Cullen, transferring two of theſe to *caligo pupillæ*, where certainly *amauroſis a ſynchiſi* ſhould not be placed, has included the other fifteen in his own four ſpecies, viz.

1. Amauroſis *compreſſionis*. 2. Amauroſis *atonica*. 3. Amauroſis *ſpaſmodica*. 4. Amauroſis *venenata*.

Without particularly ſtating my objections to his ſecond and fourth ſpecies, as being included in the third, I ſhall only make ſome obſervations on his firſt.

The *preſſure*, forming his ſpecific character, may be either on the thalami of the optic nerves, or on the nerve itſelf in any part of its extent, and may be made by exoſtoſes produced by the ſyphilitic virus; by ſteatomatous, or ſcrophulous tumours; by calculi, as noticed by Bonet; by *lymph*, as happens after ſerous apoplexy and palſy; by *blood*, either extravaſated or in its proper veſſels, as happens either from external violence, or from internal

internal cauſes, as after acute fevers and the ſanguine apoplexy.

This *preſſure* on the optic nerve by diſtended veſſels may ariſe from a ſtrong determination to the head, which may be cauſed by *ſpaſm*, and this again may be occaſioned either by *poiſons* or by any acrid matter, particularly in the alimentary canal. What numerous cauſes have we here, each requiring a ſpecific mode of treatment to itſelf! yet all are included in one ſpecies!

Surely theſe obſervations are ſufficient to evince the impropriety of the diſtinctions made by Dr. Cullen. I ſhall therefore venture to ſuggeſt a more natural diviſion, and ſhall endeavour to eſtabliſh the following ſpecies.

1. Amauroſis *ſanguinea*, related to the PYREXIÆ, has ſymptoms of plethora, and frequently begins with deep-ſeated pain in the head, or diſtreſſing weight at the bottom of the eye. It follows acute fevers and the *ſanguine apoplexy*, and it is frequently occaſioned by violent concuſſions, ſuch as may produce extravaſation of the blood, whether by blows, by falling from a conſiderable height, or by ſneezing. It may likewiſe be occaſioned by anger; by violent muſcular exertion, as in parturition; by the hot-bath; or by whatever cauſes a determination to the head. On diſſection the arteries in the orbit of the eye have been found exceedingly diſtended, and extravaſations of blood have been diſ-

covered compreſſing the optic nerves in patients who had ſuffered by amauroſis. This ſpecies comprehends the firſt and fourth ſpecies of Sauvage, which are his *traumatica* and *plethorica*.

2. Amauroſis *ſpaſmodica*, related to the NEUROSES, has ſymptoms of debility and irritability. It follows convulſive and ſpaſmodic affections, and is peculiarly the diſeaſe of *hyſterical* and *epileptic patients*. It has been obſerved to attend intermittents, atonic gout, and hemicrania, which came on after childbirth. It is often occaſioned by colic and conſtipation of bowels, particularly by colica pictonum, by the irritation of calculi in the kidneys, and by ſtoppage both of the hæmorrhoidal and of the menſtrual flux. It is likewiſe conſequent on the ſweating of the feet imprudently repreſſed, on the exanthemata repelled, or any herpetic eruptions checked; and it is particularly induced by exceſſive indulgence in the moſt exhauſting of all ſenſual pleaſures. It is ſaid to be occaſioned alſo by application of ſtramonium to the eyes.

This comprehends eight ſpecies of Sauvage, among which we find his *amauroſis a ſpaſmo*, cauſed by ſpaſmodic conſtriction of the *annulus moderator* of Valſalva. This ring is formed by the four ſtrait muſcles with the oblignus major, all which ariſe from the bottom of the orbit, and together embrace the optic nerve. The cauſe here aſſigned is certainly adequate to the effect produced. But beſides

beſides this we muſt recollect, what has been delivered in the preceding volume, on ſpaſmodic ſtricture, as the occaſional cauſe of *apoplexy*; and more particularly what I have ſaid upon the ſubject, when accounting for the determination to the brain in *mania hyſterica*.

3. Amauroſis *ſeroſa*, related to the CACHEXIÆ, has ſymptoms of relaxation, debility, and torpor. It is indeed a genuine CACHECTIC diſeaſe, ariſing from morbid affection of the lymphatic ſyſtem, being produced either by increaſed action of the exhalants, or by diminiſhed action of the abſorbents. It is the diſeaſe of hydropic habits, and attends *apoplexia ſeroſa*. I need ſcarcely add, that it is occaſioned by poverty of diet, exhauſting diſeaſes, hæmorrhages, anxiety, protracted grief, hard ſtudy, vigilance, the application of cold after exerciſe, by dram-drinking, and by every kind of intemperance.

This ſpecies is the *amauroſis pituitoſa* of Sauvage.

4. Amauroſis *organica* has none of the preceding ſymptoms, or at leaſt not as connected with this affection of the eye.

It is occaſioned commonly by external violence, ſuch as wounds dividing the optic nerve itſelf, or by ſuch effulgency of light as may be ſufficient to change the organic ſtructure of the retina. But Bonetus diſcovered the optic nerves atrophic and waſted to half their uſual ſize, which muſt have ariſen from ſome internal cauſe, and my friend M. Gimbernat

in

in the place of the retina had once occaſion to obſerve a bony ſubſtance, which muſt have been either an incruſtation, or the oſſification of that medullary expanſion of the optic nerve, produced by the ſame proceſs as oſſifications in the brain. Mr. Gimbernat has preſerved this curious production in his Muſeum at Madrid.

5. Amauroſis *ſymptomaticæ*.

a. Amauroſis *venerea*, the conſequence of impure connexion. In this ſpecies hydatides have been diſcovered by Boerhaave on the retina, and exoſtoſes very frequently produced by the venereal poiſon, are apt to preſs upon the optic nerve.

b. Amauroſis *ſcrophuloſa*, in ſcrophulous habits. In this ſpecies Sauvage diſcovered by diſſection ſtrumous glands incumbent on the optic nerve, and various tumours producing the ſame effect have been noticed by Hoffmann.

As to the *amauroſis foricariorum* of Sauvage, I know not where to claſs it, nor do I believe that the nocturnal ſcavengers of London are acquainted with this wonderful diſeaſe: yet ſuch is the authority of Ramazzini, from whom Sauvage has adopted it, that I cannot doubt of its exiſtence. As however it is ſufficient for theſe men to cover their eyes with glaſſes in order to avoid the dire effects of

of their needful, although humble, occupations, we need not be very anxious to diſcover the pathology of this diſeaſe.

SECTION III.

OF THE INDICATIONS OF CURE IN AMAUROSIS.

THESE muſt depend on the nature and cauſe of the diſeaſe, for no medicine has ever been diſcovered, which can cure indifferently every ſpecies of the ſame diſeaſe.

I ſhall therefore conſider what is the proper mode of treatment in the ſeveral ſpecies of amauroſis.

1. Amauroſis *ſanguinea.*

The indications of cure are preciſely the ſame as in *apoplexia ſanguinea*, to which I muſt refer the ſtudent. It is for this reaſon, that Hoffmann, if the pulſe admits of ſuch evacuations, recommends bleeding, by leeches applied to the temples, by the lancet from the feet, or, in preference to both, either from the frontal vein or from the temporal artery. With the ſame view of diminiſhing preſſure in the brain, he adviſes to cleanſe the firſt paſſages by cooling and moſt gentle cathartics, and the great inteſtines by carminative clyſters. With theſe remedies he enjoins ſtrict temperance.

2. Amauroſis

2. Amauroſis *ſpaſmodica.*

The indications of cure are the ſame as in palſy and epilepſy, which the ſtudent may conſult.

We muſt here be particularly careful to obviate, firſt the occaſional, then the prediſponent cauſe of ſpaſmodic affection. If, as very often happens, there is irritation in the alimentary canal, it muſt be removed by gentle cathartics and carminative clyſters. If the irritation ſhould be from the hæmorrhagic effort in the uterine veſſels, nature muſt be aſſiſted by emmenagogues of the antiſpaſmodic order combined with tonics. If from atonic gout, attention muſt be paid to that diſeaſe. If the ſtimulus is mental, the angry paſſions muſt be reſtrained. If the ſweating of the feet has been repreſſed, if exanthemata have been repelled, or if herpetic eruptions have been checked; the ſame treatment muſt be adopted, as recommended by Hoffmann in his *tuſſis ferina*, which is to be found in my ſection vi. of *catarrh.*

Hoffmann particularly recommends calomel with balſamics and corroborants, which in many caſes obviate both the remote cauſes of the diſeaſe.

Dr. Collin of Vienna, ſince the year 1773, has introduced the *antica montana* to the notice of phyſicians, as a powerful tonic in caſes of amauroſis, and ſome of my friends in Spain have proved its efficacy. He gave from two drams to half an ounce infuſed in boiling water, with an ounce of ſyrup of maiden hair, (*adiantum capillus veneris*) for a

doſe,

doſe, and he aſſures us, that in nine caſes it perfected the cure. As it is a penetrating aromatic bitter, it promiſes to be a valuable acquiſition in a variety of ſpaſmodic affections.

Electricity is of all antiſpaſmodics, the moſt ſpeedy in its operation, and in caſes of amauroſis has very frequently been found effectual. Mr. Wathen and Mr. Phipps have cured many patients by that means.

A generous diet is admiſſible in this diſeaſe, yet every ſpecies of intemperance muſt be carefully avoided. The patient muſt ſhun the extremes, and the ſudden alternations of heat with cold.

3. Amauroſis *ſeroſa.*

The indications are preciſely the ſame as in *apoplexia ſeroſa.* Emetics, cathartics, diuretics, bliſters, ſetons, and ſternutatories, are highly proper, and may be followed up with ſpirit. The abſorbents may be excited to action by calomel, and particularly by ſuperoxygenated air. Of this I have been witneſs in the practice of my friend Dr. THORNTON, more eſpecially in the caſe of Patterſon.

4. Amauroſis *organica* admits of no relief.

5. The ſymptomatic affection muſt be referred to the primary diſeaſe.

Genus

Genus LXXXVI. *Dyſopia.*

Sight depraved, requiring one certain quantity of light, one particular diſtance or poſition.

Dr. Cullen has five ſpecies. 1. Dyſopia tenebrarum. 2. Dyſopia luminis. 3. Dyſopia diſſitorum. 4. Dyſopia proximorum. 5. Dyſopia lateralis.

Theſe coincide with as many ſpecies of *amblyopia* in Sauvage; but as with theſe this learned profeſſor has aſſociated two others which evidently belong to different genera, Dr. Cullen has remitted one of them to caligo, the other to amauroſis.

1. Dyſopia *tenebrarum*, in which objects to be ſeen require the ſtrongeſt light.

This ſpecies Sauvage informs us was epidemic in the vicinity of Montpellier, chiefly near the rivers, where ſoldiers in particular, who mounted guard by night, were the firſt to ſuffer.

It was cured by evacuants, ſuch as emetics, cathartics, diuretics, diaphoretics, bliſters, and bleeding.

Boerhaave mentions a variety of this ſpecies ariſing from contraction and immobility of the pupil, which he conſidered as incurable.

2. Dyſopia *luminis*, in which objects to be ſeen require obſcurity.

This muſt ariſe from extreme ſenſibility of the

the retina, as in caſes of inflammation, with a peculiar conformation of the iris. When it ariſes from inflammation, the cure is obvious.

3. Dyſopia *diſtitorum*, near-ſightedneſs.

4. Dyſopia *proximorum*, in which near objects are indiſtinctly ſeen.

Theſe require the aid of the optician.

5. Dyſopia *lateralis*, in which objects to be ſeen require an oblique poſition.

This may ariſe, 1. From the obliquity of the pupil. 2. From want of tranſparency in ſome part of the cornea. 3. From obliquity of the cryſtalline. 4. From want of ſenſibility in a part of the retina. 5. From the habit of ſquinting, in which caſe alone relief can be expected. This, according to circumſtances, may be obtained either by proper ſpectacles or by a proper maſk.

Genus LXXXVII. *Pſeudoblepſis.*

Sight depraved, creating imaginary objects, or repreſenting them different from what they are.

Sauvage has entered fully into this moſt curious ſubject, and in his two genera of ſuffuſio and diplopia, has taken notice of all the optical deceptions which ariſe from morbid affections of the eye.

But

But as theſe may be regarded chiefly as ſymptomatic of ſome primary diſeaſe, I ſhall not here repeat his obſervations. They moſt commonly attend either fever or ſpaſmodic affections, and then originate in preternatural determination to the brain. In the firſt caſe the proper remedies are the tepid pediluvium, bleeding, carminative clyſters, refrigerant cathartics, and every part of the antiphlogiſtic regimen. But if the determination to the head ariſes from ſpaſmodic affection, the principal attention muſt be to remove the ſtimulating cauſe, then to invigorate the general habit.

If the eyes have been fatigued by nocturnal ſtudies, or diſtreſſed by immoderate effulgence, they muſt be permitted to repoſe, and the tonic plan muſt be purſued.

Genus LXXXVIII. *Dyſecoea.*

Hearing diminiſhed or deſtroyed.

SECTION I.

OF THE CAUSES OF DEAFNESS.

1. THE *meatus auditorius externus* may be cloſed by,

a. Inſpiſſated wax, which ſometimes acquires the hardneſs of a ſtone.

 b. Membrane

b. Membrane formed in the meatus, which may be rendered thicker by collecting wax.

c. A fleſhy excreſcence or polypus ſucceeding an ulcer.

d. Swelling of its glands.

e. Extraneous bodies dropt into the ear.

2. The *membrana tympani* may be morbidly affected by,

a. Relaxation, which may be occaſioned by humidity, or by the diſcharge of ulcers.

b. Preternatural tenſion. In this caſe the perſons hear beſt in damp and foggy weather.

c. Becoming callous or even long, as happens to other membranes.

d. Rupture occaſioned either by external and mechanical violence; by the concuſſion of loud ſounds, or from within, through the Euſtachian tube, by ſneezing. Or the ſolution of continuity may be occaſioned by acrimonious pus.

3. In the *tympanum*

a. The ſmall bones may either loſe their power of motion by adheſive inflammation, or may be deſtroyed by caries.

b. The muſcles ſerving for the motion of theſe bones may be morbidly affected either

by ſpaſm, by palſy, or by inflammatio and ſuppuration, which is the more readily induced becauſe of their connexion with the Euſtachian tube.

c. Next to wax in the auditory paſſage, the moſt common cauſe of deafneſs is obſtruction in the *Euſtachian tube.* When I was in Edinburgh, M. Bradewood, now of Hackney, was there teaching the deaf and dumb to underſtand and ſpeak. He had then about twenty ſcholars, who were all born deaf. Upon examination I diſcovered that in the major part of theſe the Euſtachian tube was cloſed. In violent fevers this effect is very frequently produced by inflammation, as happened to the patient whoſe caſe of bilious autumnal fever is related in the beginning of my firſt volume. Sometimes the tube is cloſed by viſcid mumus, as in catarrh, on the going off of which the hearing is ſuddenly reſtored and the paſſage is opened by a loud and ſurpriſing ſnap. It often happens that venereal virus either produces exoſtoſes in the bony part of the tube, or ulcers, with the adheſive inflammation in the muſcular part, and the paſſage is obliterated. It is ſometimes cloſed by polypus.

4. The *internal ear* may be morbidly affected

a. By

a. By redundance or deficiency of aqueous fluid in the labyrinth.

b. By inflammation and ſuppuration of the perioſteum.

c. By caries of its bones.

5. The *auditory nerves* are ſubject preciſely to the ſame affections as the optic nerves, and for theſe, therefore, I muſt refer the ſtudent to what I have ſaid on *amauroſis*.

SECTION II.

OF THE CURE OF DEAFNESS.

1. When we are to examine a patient, who complains of deafneſs, we muſt begin with the external ear, and for this purpoſe we muſt contrive to throw a ſun-beam into the *auditory paſſage*. Should this be obſtructed by extraneous bodies, they muſt be extracted; if by inſpiſſated wax, which is moſt frequently the caſe, it muſt be ſoftened either by ox gall, by oil of bitter almonds, or by warm milk with four drops of aqua kali, then waſhed, by injecting frequently ſage tea with honey. The ox gall or oil muſt be put into the ear at night, and the paſſage muſt be ſyringed the next morning. The ſyringe ſhould have a ſilver pipe with numerous perforations at the end, ſome lateral, others ob-

lique, but none direct, leſt the membrane of the drum ſhould be mechanically injured. After injecting this infuſion, the ear muſt be kept warm, and no cold liquids muſt be drank. This operation muſt be repeated every day, even for a month, or till the wax is cleared away.

If there is a ſuperfluous membrane, it muſt be pierced; if a polypus, it muſt be extirpated either by ligature, by the knife, or by a cauſtic, which may be introduced by means of a tent thruſt through a canula adapted to the ear.

If the glands are ſwelled, a few drops of oil of almonds with camphor will allay the pain, and gentle cathartics with ſmall doſes of calomel will reduce them. Should they ſuppurate a decoction of barley and agrimony will cleanſe the ulcers.

2. If the *membrana tympani* is relaxed, the hearing will be worſt in foggy weather, and will be quickened in a time of froſt. For this, tonics externally and internally applied are proper, ſuch as cold bathing, cool air, exerciſe, a generous diet, bitters, bark, and ſteel, and a cold infuſion of tormentil may be injected into the paſſage of the ear, once every morning.

Should this membrane be affected with preternatural tenſion, oil of almonds may be dropt into the ear at night. When we ſuſpect that deafneſs ariſes from laceration, or from eroſion of the membrana tympani, the perſon muſt be made to take a full in-

ſpiration

ſpiration of air into his lungs, then ſtop his noſtrils and his mouth, and endeavour to expire. Should air eſcape by his ears, we may be certain that we have diſcovered the cauſe of deafneſs, and need look no further.

3. To diſcover whether one or both the Euſtachian tubes are cloſed, let the expedient mentioned in the preceding ſection be reſorted to, and if they are open the air will be felt preſſing the membrana tympani. If nothing is felt, the tubes are cloſed. Diemerbroeck remarks, that when theſe tubes in catarrh are cloſed by mucus, if you ſtop both ears, and with a ſtick between your teeth, ſtrike the ſtrings of a muſical inſtrument, you hear no ſound, and that by this method he examined his patients; but the preceding trial will be fully ſufficient for our purpoſe.

If the Euſtachian tube is cloſed by mucus, it will be proper to try *ſialagogues* followed by cephalic ſnuff, or ſome more efficacious ſternutatory, which may be found in the claſs *errhina* of my Vade Mecum. Should theſe prove inſufficient a proper catheter may be introduced into the tube through the noſtril, as Dr. Monro of Edinburgh has practiſed.

4. The diſeaſes of the *internal ear* are not eaſily diſtinguiſhed; but theſe, it is apprehended, very ſeldom happen, becauſe the parts are far removed from injury. When however either the muſcles,

the membranes, or the bones of the ear, participate in the general affections of the ſyſtem, the general treatment will extend its beneficial effects to them. The diſeaſes of the ſyſtem may come under the claſs either of pyrexiæ, of neuroſes, or of cachexiæ; and ſo may all the diſeaſes to which the internal ear is ſubject. In all dubious caſes, therefore, the attention muſt be turned towards the general ſtate and condition of the ſyſtem, and according to theſe the practice muſt be governed.

5. Affections of the *auditory nerve* are, perhaps, as common as thoſe of the optic nerve; but unfortunately they are not ſo readily diſtinguiſhed. In *amauroſis* we can have little room to doubt, becauſe when there is no viſible injury, when the parts are all tranſparent, and when the pupil is dilated and immoveable, it is evident, that there muſt be obſtruction of the nerve; but in the ear all the internal parts are hid.

If, however, either apoplexy, palſy, epilepſy, virtigo, head-ach, or loſs, or even imperfection of any other ſenſe has either immediately preceded, or attends the deafneſs, we may have reaſon to ſuſpect that there is preſſure on the nerve.

This preſſure on the auditory nerve may be produced by

a. Blood, and may ariſe from either plethora, and therefore require evacuants with a vegetable diet and conſtant exerciſe; or it may be induced, as it very

very often is, by ſpaſmodic affection and determination to the head, which may be either permanent or periodical, and may return either regularly or at uncertain intervals. In theſe caſes the ſame treatment preciſely is required as in *amauroſis ſanguinea* and *amauroſis ſpaſmodica*, to which I muſt requeſt particular attention.

b. Serum, with ſymptoms of relaxation, debility, and torpor, as in *amauroſis ſeroſa* and in *apoplexia ſeroſa*, under which the proper treatment will be found.

c. Steatoma. d. Exoſtoſis, which, if produced either by ſcrophula, or by the venereal virus, will require the ſame remedies as have been ordered in thoſe diſeaſes.

SECTION III.

CASES OF DEAFNESS.

Case I.

A patient, at firſt ſeized with blindneſs, was afterwards affected with deafneſs, and finally with total privation of all the animal functions. On diſſection, Drelincourt diſcovered a ſteatoma between the cerebrum and cerebellum. See Duverney, p. 134.

Case II.

A girl who had been deaf for many months, was at the ſame time pale, low ſpirited, and complained of deficient

catamenia. After taking hyoſcyamus albus daily for ſix weeks, ſhe perfectly recovered her hearing, her colour, and her fleſh. She began with one third of a grain, and gradually increaſed the doſes to ſeven grains a day. See Sauvage, Vol. I. p. 753.

Case III.

A gentleman of high rank in Holland, aged 40, of the ſanguine phlegmatic habit, indulging himſelf in eating, became very corpulent, and at the ſame time loſt his hearing, which was always worſt in rainy weather. Hoffmann being conſulted, ordered ſtrict abſtinence and much exerciſe. He forbid all broth, fat meats, eggs, fiſh, and boiled fleſh, allowing only half a pound of roaſt meat every day, with biſcuits inſtead of bread. For his common drink he was ordered a decoction of china-root, graſs and ſarſaparilla, which he likewiſe drank early in the morning before he roſe from bed, to promote a perſpiration. He was allowed but little ſleep, and only a moderate quantity of wine. This regimen, preceded by veneſection and a thorough cleanſing of his bowels, ſoon reſtored him to his perfect hearing, after he was reduced half an ell in bulk.

Case IV.

A lady, aged 60, of a ſtrong conſtitution, yet ſubject, when coſtive, during ſeaſons of rain, to heavineſs and pain in her head, with ſome degree of deafneſs, was ſuddenly ſeized with total loſs of hearing in the left ear, and difficulty of hearing in the right. By the advice of Hoffmann, after ſome months ſhe had tried other remedies in vain, ſhe took a dram of rhubarb with an ounce of coffee made into an infuſion, which was repeated at intervals,

and

and ſhe put a clove of garlic alternately with a few drops of eſſence of colocynth and muſk into her ear. By theſe means her hearing was reſtored. Had they failed, the profeſſor would have ordered a few grains of ammonia pp. with a ſmall quantity of caſtor to have been put into the ear.

Case V.

A veteran profeſſor, who for 16 years had loſt the hearing of his right ear, fearing the ſame misfortune for the left, applied to Hoffmann, who finding his bowels conſtipated, ordered cathartic pills. Theſe, among other ingredients, were compoſed of calomel, cinnabar, aloes, jalap, and ſalt of amber with Peruvian balſam. But the good old man, wrapped up in the profoundeſt meditations as he walked, inſtead of one ſcruple, conſiſting of 14 pills, took the whole quantity preſcribed, being no leſs than 120 pills. In leſs than two hours he had excruciating pain in his inteſtines, with nauſea and frequent faintings; yet he had only four motions: violent ſpaſmodic pain in the right ſide of his head, more particularly of the ear, ſucceeded, and raged to ſuch a degree as to deprive him of reſt. This was however followed by a dreadful exploſion, like the diſcharge of a cannon, which removed the pain, and his hearing perfectly returned.

Case VI.

A military præfect in the vigour of youth, having taken cold during a mercurial ſalivation, loſt his hearing altogether, and complained of a weight in his head. After two months, the Prince of Orange ſent him to Hoffmann, who ordered the following cathartic:

℞ Gum

℞ Gum Ammon. Extract. Rhei, Aloë, Calomelan. Cinnab. aa. ʒſs. Sal. Succin. Croci, Caſtorei, aa. gr. xij. Balſ. Peruv. q. s. f. Maſſ. Pilul. Ex Scrupulo uno f. Pill. xx. quas pro doſi alternis diebus ſumat.

That is,

Gum ammoniac, rhubarb, aloes, calomel, cinnabar, of each half a dram; ſalt of amber, ſaffron, caſtor, of each twelve grains; Peruvian balſam, ſufficient to make a maſs of pills, one ſcruple of which made into twenty pills may be taken every other day.

With this he ordered a ſparing diet, abſtinence from wine, and the warm pediluvium twice a day. He put a bliſter to the nape of the neck, gave him a ſternutatory powder, and put cotton with a few drops of what he called his balſam of life into the ears. By theſe means his hearing was reſtored.

Case VII.

A Dutch count, aged 69, of the ſanguine temparament, much diſpoſed to anger, temperate, robuſt, and accuſtomed from his youth to the fatigues of hunting and of war, complained of vertigo, more eſpecially in going down ſtairs, with great weakneſs of head and pain in the cervix after deep meditation, or any remarkable intenſity of thought. His mouth and lips were inflated and diſtorted, his hand trembled when he wrote, and the left ſide of his face was ſpaſmodically affected. His left eye was inflamed, and on his tongue he had ſome puſtules, which diſtreſſed him with a burning heat. His hearing was almoſt deſtroyed, but that of the left ear was much the worſt. He had been ſuddenly ſeized with the paralytic affections about a year and

an

an half before, on returning home after having been expoſed to humidity and cold. In other reſpects the count was vigorous, rode a hunting, and performed all the functions of life with ardour. Yet his alacrity was greateſt after meals, and after dinner he could both write without tremor, and indulge intenſity of thought without feeling any remarkable weakneſs in his head.

It muſt be added, that he had been accuſtomed formerly to bleed frequently in the foot, but that latterly he had loſt blood by the arm only, twice a year, at the equinoctial periods, and that he had formerly been open in his bowels, but now complained of coſtiveneſs.

Hoffmann attributing, as he informs us, *the paralytic affection, the vertigo, the deafneſs, and the diſtreſſing weakneſs of the head after intenſity of thought*, to one and the ſame cauſe, a ſuperabundance of ſerous fluids, and being perſuaded *that a determination to the head was ſupported by conſtipation of bowels*; ordered ſuch cathartics as, conſidering the age of his patient, he could venture to preſcribe. Theſe were rhubarb, ſalt of tartar, crocus of antimony, and crabs claws, given twice a week. He ordered oil of amber with aqua ammoniæ, and what he calls tinctura tartari, to be taken twice a day. The reſult of this curious caſe is not communicated.

Genus LXXXIX. *Paracuſis.*

Dr. Cullen has two ſpecies; 1. That in which ſounds are heard, but not with the uſual conditions. 2. That in which the ſenſation is excited by internal cauſes. But Sauvage of theſe makes two genera,

nera, *paracuſis*, and *ſyrigmus*, the firſt containing four, the latter eleven ſpecies, of which I ſhall here take notice.

1. Paracuſis *barycoia* is the affection in which loud ſounds create confuſion in the hearing. It is attributed to rigidity and rheumatic affection in the muſcles, which move the malleus and the ſtapes.

2. Paracuſis *oxycoia* is confuſion of hearing, ariſing from extreme ſenſibility and intolerance of ſounds, which is induced by inflammatory and ſpaſmodic affections. The marchioneſs Pariſina, labouring under cephalalgia and hyſteric cough, was ſo diſtreſſed by the voice of her attendants, that not only the pain of her head increaſed, but it extended to her cheſt; and her *cough* was wonderfully aggravated. Some patients are thrown into convulſions, or become delirious, even by the ſlighteſt ſounds.

3. Paracuſis *duplicata*. Double hearing.

A muſician, who excelled upon the German flute, walking in a cold rain at night, was ſeized with a catarrh, in conſequence of which, when playing the flute, he heard a double ſound, iſochronous, but not in harmony, and therefore ſo offenſive, that he was obliged to lay aſide his flute. This ſymptom ceaſed with the catarrh.

A ſimilar caſe continued for many months.

4. Paracuſis *Williſiana*. This ſpecies requires loud

loud noiſes to aſſiſt the ear in diſtinguiſhing articulated ſounds. Dr. Willis records four caſes, one of which required a drum to be conſtantly beating. One deaf perſon heard well in a carriage, and another when the bells were ringing near him.

Sauvage, as I have ſtated, enumerates eleven ſpecies of *ſyrigmus*, in which imaginary ſounds of different kinds are excited by internal cauſes. The principal of theſe it will be ſufficient merely to enumerate:

1. Syrigmus *criticus*. 2. Syrigmus *a debilitate*.
3. Syrigmus *plethoricus*. 4. Syrigmus *cephalalgicus*.
5. Syrigmus *catarrhalis*. 6. Syrigmus *vertiginoſus*.
7. Syrigmus *a ventriculo*. 8. Syrigmus *ab oxycœa*.

His three other ſpecies, *ſibilus*, *ſuſurrus*, and *bombus*, make part of the generic character, and therefore ſhould not appear as ſpecies.

When this diſeaſe is ſo diſtreſſing as to require medical aſſiſtance, we muſt determine whether it is connected with the PYREXIÆ or NEUROSES; whether it is a ſymptom of the ſthenic or of the aſthenic diatheſis; that we may know how to treat it.

If the patient is athletic or plethoric; if the pulſe is full, hard, frequent, and ſtrong in the carotid arteries; if his diſtreſs increaſes when he is recumbent and warm in bed; if it is attended by vigilance, by pain in the head, and by other inflammatory ſymptoms; if it has been relieved by hæmorrhage;

rhage; it is connected with the PYREXIÆ, and requires evacuants with the antiphlogiſtic regimen.

But if the patient is of a relaxed and irritable habit; if he has been exhauſted by previous diſeaſes, or by any ſpecies of intemperance; if he has ſuffered by hæmorrhages or exceſſive evacuations of any kind; if he is reduced by penury; if he has been ſubject to hyſterical, epileptic, or other nervous diſeaſes; it is connected with NEUROSES, and requires chiefly cordial ſtimulants with tonics and aſtringents.

If again we find it connected with *ſpaſmodic* affection, it will be needful, not merely to obviate as above the prediſponent cauſe, but to remove the occaſional cauſes, either by anthelmintics, by emmenagogues of the tonic and antiſpaſmodic orders; or by cleanſing the firſt paſſages, whether with emetics or gentle cathartics, aſſiſted by carminative clyſters, all which will relieve effectually the determination to the head, as I have fully ſtated under *mania hyſterica*.

Genus XC. *Anoſmia.*

Smell diminiſhed or deſtroyed.

THE power of ſmelling may be diminiſhed or deſtroyed, preciſely as the ſight and hearing, by preſſure on their reſpective nerves; by extreme dryneſs

of the pituitary membrane, or by its being covered with mucus; by polypus obſtructing the paſſage of air into the noſtrils, and by deſtruction of the parts, whether it be by ozœna or by caries. From theſe circumſtances Sauvage has derived his ſpecies, which it will be ſufficient to enumerate.

1. Anoſmia *catarrhalis.* 2. Anoſmia *ab ozœna.* 3. Anoſmia *apolypo.* 4. Anoſmia *ſyphilitica.* 5. Anoſmia *verminoſa.* 6. Anoſmia *a ſiccitate.* 7. Anoſmia *paralytica.*

The treatment muſt be taken from the primary diſeaſe.

Genus XCI. *Ageuſtia.*

Taſte diminiſhed or deſtroyed.

The pathology of this affection appears to me to have been univerſally miſunderſtood. That the tongue is not the organ of taſte will appear from hence, that if the noſtrils are cloſed, or if the velum pendulum palati is drawn up ſo as to prevent the free current of air by that paſſage, the taſte of whatever is taken into the mouth will be prevented; or if the tongue is protruded, and a ſheet of paſteboard is interpoſed between the part protruded and the noſtrils, ſapid ſubſtances may be placed upon the tongue without exciting any taſte.

Hence

Hence it is, that the ſmell and taſte are ſo intimately connected, as they are univerſally obſerved to be; and hence it follows, that whatever affects the former will equally affect the latter, and that the diſeaſes are the ſame in both.

Genus XCII. *Anæſtheſia.*

Loſs of Feeling.

Sauvage enumerates four ſpecies.

1. Anæſtheſia *ab ſpinâ biſida.* Of this he ſaw ſix caſes, in the ſpace of ten years, at Montpellier. To ſuch an authority I bow down with reverence: but certainly it is not a common ſymptom of the diſeaſe, nor, unleſs I am much miſtaken, is it mentioned as ſuch by either Morgagni or by Haller.

2. Anæſtheſia *plethorica.* This he takes from Ludovici, and upon the authority of that author it muſt reſt; but I can ſcarcely conceive how a few drops of blood taken from the ranula ſhould obviate plethora and reſtore univerſal feeling to the nerves.

3. Anæſtheſia *naſcentium.* This ſeems to be *aſphyxia.*

4. Anæſtheſia *melancholica.* The ſingular caſe here

here recorded by Sauvage, is moſt remarkable, both for its ſymptoms and its cure: but as no reaſon is aſſigned for inoculating this patient with the itch, it ſeems to be imperfectly related.

Claſs IV. LOCALES.

Order II. Dysorexiæ.

The Appetites deficient or depraved.

In this order we have eight genera.

1. Bulimia. 2. Pica. 3. Polydipſia. 4. Satyriaſis. 5. Nymphomania. 6. Noſtalgia. 7. Anorexia. 8. Anaphrodiſia.

Genus XCIII. *Bulimia.*

Appetite for food voracious or canine.

A voracious appetite may be occaſioned by inanition, as happens to thoſe, who are exhauſted either by long faſting or by diſeaſe. It may ariſe alſo from an acid in the ſtomach; from a ſuperabundance of gaſtric juice; and from indigeſted ſordes. Or it may be produced by worms. And when there is more than common irritability in the nerves of the ſtomach, the food may be ſpeedily rejected.

Theſe ſymptoms are commonly increaſed by external cold, when it is not extreme.

The proper remedies, according to the nature of the cauſe, may be abſorbents; fat meats, oils, butter, wine, brandy, tobacco, opium, ſpices, iron, emetics, anthelmintics, bitters, and Peruvian bark.

Genus XCIV. *Pica.*

Appetite depraved with ſtrong deſire for unnatural Food.

Of this Sauvage enumerated ſix ſpecies, five of which Dr. Cullen has mentioned, without however giving them his ſanction. The longings of pregnant women are whimſical, capricious, and not in the leaſt to be accounted for; but the depraved appetite of children for abſorbents, of chlorotic virgins for the ſame, for ſpices, and for the moſt ſapid ſubſtances, may be conſidered as the voice of nature. The ſame may be ſaid of the cravings we frequently obſerve in ſick people, of which Dr. Whytt was always ready to indulge. Every practitioner muſt have met with inſtances of theſe. They are indeed innumerable. Such deſires are inſtinctive, like thoſe of brutes, which always guide them right.

In children and chlorotic virgins, the cauſe of pica muſt be ſought for in the alimentary canal, and the cure

cure will be found in emetics and gentle cathartics, followed by bitters, bark, and ſteel, with a generous diet, freſh air, and conſtant exerciſe. To relieve this diſeaſe, no medicine can excel the cachectic *Powder of Hartmann*, recommended by Sauvage. It is compoſed of crabs claws, ſteel filings, cinnamon and ſugar.

Genus XCV. *Polydipſia.*

Exceſſive Thirſt.

Polydipsia is ſeldom ſeen as an original diſeaſe. Yet one inſtance I have met with in the ſiſter of Mrs. Tudor, at the Crown inn, Reading, who is otherwiſe in perfect health.

Thirſt is commonly ſymptomatic of fevers, fluxes, dropſy.

It attends every kind of evacuation when exceſſive, being the voice of nature calling loudly for liquids to ſupply the deficiency cauſed by this diſcharge.

When the fluids are thickened, ſo as not to paſs freely through their proper veſſels, nature becomes impatient for a freſh ſupply of diluents; and when acrid ſubſtances have either been received into the ſtomach, or generated in the firſt paſſages, ſhe pleads powerfully for aqueous fluids to waſh them ſpeedily

away. Thus it is commonly when ſpices, ſpirits, alcaline ſubſtances, ſalted meats, or rancid oils in conſiderable quantities, have been taken into the ſtomach, and thus more particularly in caſe of poiſons.

The moſt common cauſe of *thirſt* is heat, to diminiſh which, if exceſſive, as happens after ſtrong exerciſe and in fevers, a copious perſpiration is required, and a plentiful ſupply of aqueous fluids to ſupport that diſcharge. Nature then calls for cold liquids, rather than for warm, and for aceſcent drinks, rather than for ſuch as contain ardent ſpirits. In ſuch circumſtances, as Dr. Brown has moſt judiciouſly obſerved, wine increaſes thirſt, and excites both nauſea and vomiting; whereas in hyſteria, typhus, and all caſes of debility, water augments the thirſt, which is thereby hurried on to nauſea and to vomiting, but effectually relieved by wine or ſpirits.

The reaſon for theſe diſtinctions I have already ſufficiently explained.

The pathology of polydipſia, as an original diſeaſe, has never been explained, nor, as far as my recollection goes, has it ever been removed by medicine.

Exceſſive thirſt, when ſymptomatic, muſt be cured by curing the primary diſeaſe.

Genus

Genus XCVI. *Satyriaſis.*

Exceſſive and violent deſire for Coition in Men.

If the ſtudent recollects, what I have delivered on irritability, ſtimuli, and habits, he will fully comprehend the nature of the diſeaſe in queſtion, and will quickly underſtand why it is ſeldom if ever ſeen among the laborious peaſants of country villages, whilſt it is the ſcourge of indolence, intemperance, and vice, in cities.

Morbid irritability is the prediſponent cauſe of ſatyriaſis, and this we know is founded in debility, which is increaſed by every ſpecies of intemperance, but more particularly, and to a moſt aſtoniſhing degree, by that to which the diſeaſe itſelf is conſtantly inciting.

The occaſional cauſes are to be ſought for in mental and material ſtimuli, in wine, too great an abundance of animal food with ſpices; but, above all, a diſeaſed imagination, heated by vicious company and converſation, or by improper books.

If the ſtudent will conſult what has been ſaid on the *veſaniæ*, particularly on *dreaming* and *delirium*, he will ſee that mental ſtimuli are both more permanent and violent than the material. When therefore the imagination itſelf is become the ſeat of this diſeaſe, the ſymptoms will be rendered moſt diſtreſſing.

As to the method of cure, we cannot do better than to adopt nearly the plan referred to by Sauvage, which proved ſucceſsful in two caſes. It began by moderate emetics; then the patients took milk, ſulphur, æthiops mineral, and cinnabar of antimony, with benzoine and ammonia. The diet was moderate, being confined to four ounces of animal food and a ſmall quantity of wine per day. But the moſt eſſential part of the cure, as it ſhould ſeem, was that which followed, viz. bark, orange-peel, and vitriolated iron, with the cold bath and gentle exerciſe.

The ſubſequent preſcription comes recommended with the authority of Sir John Pringle as a powerful antiaphrodiſiac.

℞ Lign. Guaiac. un. 3. Lig. Junip. un. 2. Rad. Chinæ, un. 1. Argent. Viv. in linteo humido ligati, Antimon. Crud. in linteo ligat. ana, un. 1. poſt debitam cum aqua font. infuſionem coquantur ad ℔ 6. Sub finem coctionis addendo Rad. Glycyr. un. 2. Colat. Capiat. un. 30—60. omni quotidie per 30 ad 50 dies.

Yet in addition to this alſo it muſt be obſerved, that tonics are certainly required to obviate the prediſponent cauſe, and that gentle exerciſe in the open air is a powerful tonic. Violent exertions would exhauſt the vital energy and increaſe debility: but nevertheleſs it will be found expedient to puſh the exerciſe as far as poſſible without producing this effect,

ſect, becauſe in this caſe the quantity of animal food may be increaſed, and then muſcular exertion will continue to be a powerful tonic. Beſides by experience it is found, that when a due quantity of vital energy is expended in this way, nature is not ſolicitous to ſeek relief from any other quarter, but quietly ſinks into refreſhing ſlumbers.

Nocte fatigatum ſomnus, non cura puellæ,
Excipit; et pingui membra quiete levat.

The patient muſt likewiſe endeavour to procure ſome agreeable employment for his mind, in order to obviate the mental ſtimulus, at the ſame time moſt carefully avoiding ſuch places, ſuch ſociety, and ſuch books, as have been accuſtomed to inflame his imagination and to excite his paſſions.

If by theſe means he acquires ſome degree of fortitude and reſolution, a cure may be expected, becauſe by degrees evil habits may be broken; whereas by indulgence every evil habit is confirmed.

It is the property of a ſtimulus, either to produce action, or to exhauſt the irritability of the part to which it is applied. If action is produced, and any kind of drain from the ſyſtem is eſtabliſhed; nature provides a regular ſupply, and becomes impatient whenever that evacuation ceaſes. This may be obſerved in the hæmorrhoidal and in the menſtrual diſcharge, in periodical hæmorrhages, ſuch as epiſtaxis, and in thoſe perſons who at ſtated ſeaſons have been accuſtomed to be blooded. It is

from this principle alone that plethora is increaſed by venæſection.

Again, when nature has been taught to act on the ſlighteſt irritation, ſhe becomes impatient under the common ſtimuli, and is thrown into convulſive or ſpaſmodic action by thoſe which would have otherwiſe been endured without commotion.

In the extreme debility of typhus, in hyſteric affections when ſevere, or when a perſon has long been ſecluded from the light, how irritable is the retina! how impatient under the ſtimulus of light! After long confinement with ſilence and ſolitude, how readily are ſuch patients convulſed by the ſtimulus of ſounds! The ſame may be ſaid of every other ſtimulus, even of blood in the arteries of one who is exhauſted and dying of an hæmorrhage.

If from fortitude and reſolution the ſtimulus is endured, the irritability of the part to which it was applied will be exhauſted, and, according to circumſtances, it may be hours, weeks, or months, before the irritation is renewed. This may be obſerved with reſpect to hunger, to parturient pain, and particularly to the appetite before us in thoſe animals, with which we are beſt acquainted, of the domeſtic tribe.

Genus

Genus XCVII. *Nymphomania.*

This diſeaſe, which is the ſame with the preceding, is common in warm climates. The effects, as deſcribed by Juvenal in his ſixth ſatire, are moſt humiliating to human nature. It acknowledges the ſame cauſes with ſatyriaſis; but as females, more eſpecially in warm climates, have a more irritable fibre, they are apt to ſuffer more ſeverely than the males.

As a natural diſeaſe, it requires tonics and aſtringents; as moral, it calls for moral arguments: in both caſes the prudential cautions recommended in ſatyriaſis are expedient. But, from what I have had an opportunity to obſerve in Spain, I muſt further add, that young perſons of delicate ſentiments and tender conſciences muſt be careful not to miſtake a mere natural deſire for moral turpitude, leſt diſtreſs of mind ſhould increaſe the prediſponent cauſe of this morbid affection, which is debility, attended by irritability, and leſt by rivetting this too vivid idea in the mind, it ſhould there prove a conſtant ſtimulus to excite deſire and aggravate that diſtreſs which they are impatient to relieve.

Genus XCVIII. *Noſtalgia.*

Impatience when abſent from one's native home, and vehement deſire to return, attended by melancholy, loſs of appetite, and want of ſleep.

This diſeaſe is equally familiar to the Swiſs and to the peaſants of the Aſturias, who have quitted their native mountains, and in many caſes has proved fatal. It commonly deranges the digeſtive functions, and commits the greateſt ravages in the alimentary canal, inducing flatulence, coſtiveneſs, atrophy, and death.

Dr. Hamilton, of Ipſwich, records a curious caſe in a Welch recruit, A. D. 1781. This young man was of a gloomy countenance, and complained of weakneſs. His pulſe was frequent and ſmall. He had little appetite; his ſleep was diſturbed by ſtarting, he was atrophic, and his ſtrength was ſo reduced, that he could not leave his bed, yet he had no pain, no thirſt, no cough. Neither wine, cordial, ſtimulants, nor other tonics, had the leaſt effect, for his pulſe daily became quicker and ſmaller.

Evening exacerbations and morning ſweats ſucceeded. His nails became incurvated, and the tunica adnata of his eyes pellucid, attended by debility and emaciation in the extreme.

In this ſituation his ſagacious phyſician obtained

from the commanding officer, and communicated to his patient, a promiſe of a furlough for ſix weeks.

On this promiſe his appetite and ſtrength returned; in a few days he was able to get up, and in two months he left the hoſpital, being then perfectly reſtored to health.

Genus XCIX. *Anorexia.*

Appetite impaired.

Dr. Cullen very properly conſiders *anorexia* as ſymptomatic of other diſeaſes, but chiefly of dyſpepſia; yet, for the benefit of ſtudents, he takes it as a genus, and reduces nine out of the thirteen ſpecies, enumerated by Sauvage, to two. The other four he conſiders as uncertain. His two ſpecies are,

1. Anorexia *humoralis*; and 2. Anorexia *atonica:* but in my apprehenſion he might have reduced them both to the *atonica*, becauſe *anorexia pituitoſa*, *anorexia bilioſa*, and the *anorexia a ſaburra*, which are the three ſpecies of Sauvage, included in the anorexia *humoralis* of Cullen, all ariſe from *atony*, either of the mucous glands, or of thoſe which ſecrete the gaſtric juice.

1. When the mucous glands are relaxed, the ſtomach will be lined with viſcid mucus; digeſtion will

will be impeded, and bile may regurgitate; in conſequence of all which, the appetite for food, as well obſerved by Boerhaave in his aphoriſms 70, 71, will be impaired. The proper remedies in theſe caſes are emetics, rhubarb, ſteel, and aromatics, temperance, exerciſe, and air, but particularly *vital air*.

The anorexia *melancholica* of Sauvage, arranged by Cullen under *his atonica*, is ſtated to ariſe from fear and grief, which relax the mucous glands, load the firſt paſſages with ſlime, and thereby ſeparate between the living fibre and the gaſtric juice.

2. When the glands, which ſecrete the gaſtric juice, become atonic, this ſolvent will be deficient, either in quantity or quality; and in either caſe the appetite for food will be impaired.

This affection of the glands may be a ſymptom of palſy, and of comatoſe affections, or it may be induced by violent and exhauſting ſtimuli topically applied, ſuch as opium and ardent ſpirits in exceſs. This conſtitutes the *anorexia paralytica* of Sauvage.

It is however probable, that the ſame cauſes, which derange one ſet of glands in the ſtomach, diſturb at the ſame time the action of the other, more eſpecially in caſes of *anorexia paralytica*, and for this reaſon it is that Sauvage recommends emetics and cathartics. Yet, if the emetics ſhould not bring to light a quantity of viſcid mucus, we may be certain that theſe glands only, which ſecrete the gaſtric

tric juice, are injured. In this caſe not emetics and cathartics, but cordial ſtimulants and tonics, ſuch as opium and ether, with bitters and aromatics, will be expedient.

This obſervation more particularly applies to the *anorexia arthritica* and to the *anorexia exhauſtorum* of Sauvage, both very properly arranged by Cullen under his anorexia *atonica*.

In caſes of fever, loſs of appetite ariſes from two cauſes, 1. From viſcid mucus lining the ſtomach, and ſeparating, as I have ſtated, between the living fibre and the gaſtric juice. 2. From the fever itſelf, if of the ardent or inflammatory kind, becauſe nature then requires and loudly calls for, not ſuch ſubſtances as abound with hydrogen, but cooling diluents, with acids and aceſcent fruits, as I have fully explained in my obſervations on reſpiration and vital air, when treating of continued fever in my firſt volume, which, that I may avoid repetition, I muſt requeſt the ſtudent to conſult. Indeed the young practitioner ſhould always have it deeply impreſſed upon his mind, that when the ſyſtem is ſupplied by the lungs with *oxygen*, HEAT, by decompoſition of the *vital air*, is generated in proportion to the quantity of *oxygen* abſorbed in reſpiration by the blood: but that when the ſyſtem is ſaturated with *oxygen* by the ſtomach, and receives it, not from an elaſtic fluid abounding with caloric, but from either ſolids or from non-elaſtic fluids, no ſuch ſupply

of

of VITAL HEAT enſues, and that the quantity of heat muſt therefore ſenſibly diminiſh.

It is probable that nature, in her efforts to relieve herſelf, may, in ardent fever and in extremity of heat, ſupply a leſs than uſual quantity of gaſtric juice, and then in both theſe caſes loſs of appetite will follow; and will be properly arranged under anorexia *atonica*.

The *anorexia neophytorum* of Sauvage ariſes, like his *pituitoſa*, from mucus accumulated in the alimentary canal, and may be cured by rhubarb and magneſia, to which half a grain of calomel may be added to advantage.

That the young practitioner may not miſtake inability to ſuck in new-born infants for *anorexia*, I may here tranſiently obſerve, that when the tongue is tied, they ſeize the teat and try to ſuck, but inſtantly manifeſt diſappointment and diſtreſs.

Genus C. *Anaphrodiſia.*

Impotence.

DR. CULLEN enumerates two ſpecies. 1. *Anaphrodiſia paralytica.* 2. *Anaphrodiſia gonorrhoica*; the former a paralytic affection of the muſcles, and the latter the conſequence of extreme debility.

When impotence appears, as the dregs of ſatyri-

aſis,

aſis, there can be little expectation of relief from medicine; but when it is merely the conſequence of general debility, a generous diet, with tonics and aſtringents, aſſiſted in their operation by exerciſe and air, particularly by *ſuperoxygenated air*, will ſpeedily effect a cure.

I had whilſt I was in Spain a patient, a moſt reſpectable and virtuous man, who from ſickneſs and debility had anaphrodiſia gonorrhoica, and for this complaint had been moſt prepoſterouſly reduced to a vegetable diet. When he conſulted me his pulſe was very frequent, but ſo ſmall as ſcarcely to be felt, and ſuch was the irritability of his ſyſtem, that he could not ſuffer the irritation, either of a razor on his beard, or of a comb to his head, without ſpaſmodic affection producing *gonorrhœa*.

I ordered him animal food, with plenty of wine and the Peruvian bark, and made him undertake a journey, in conſequence of which he was ſpeedily reſtored to health with perfect ability to perform his functions.

Claſs IV. LOCALES.

Order III. Dyscinesiæ.

Motion impeded or depraved from an imperfection of the organ.

In this order we have ſix genera.

1. Aphonia.

1. Aphonia. 2. Mutitas. 3. Paraphonia. 4. Pſelliſmus. 5. Strabiſmus. 6. Contractura.

Genus CI. *Aphonia.*

Inability to utter ſounds, without either ſyncope or coma.

Sauvage has nine ſpecies of aphonia, which Dr. Cullen has reduced to three.

I. Aphonia *gutturalis*, ariſing from tumefaction of the fauces, and particularly of the glottis, which is the *aphonia catarrhalis* of Sauvage. This may be produced by either angina or catarrh, and muſt be treated accordingly.

II. Aphonia *trachealis*, from compreſſion of the trachea, by aneuriſm of the carotids, or of the bronchia, by either aneuriſms of the aorta and of the heart, or by tumors in the lungs, ſuch as abſceſs, vomica, ſteatoma, ſcirrhus.

III. Aphonia *atonica*, ariſing, 1. From diviſion, whether by eroſion or by mechanical violence of the recurrent nerves, as happens ſometimes in the extirpation of glands in the neck, whether ſtrumous, cancerous, or ſteatomatous. 2. From paralyſis of the recurrent nerves induced by ſpaſm and occaſioned by affections of the ſtomach.

The

The nervous communication between this organ of digeſtion, and the larynx is maintained by the *par vagum*, which deſcending along the œſophagus, as it enters the thorax, ſends back the recurrent nerves to be diſtributed wholly in the larynx, and is itſelf loſt in the pharynx, lungs, and heart, but chiefly in the ſtomach.

Dr. Cullen very properly obſerves, that the *aphonia* MELANCHOLICA, aphonia *paralytica*, aphonia *temulentorum*, aphonia *hyſterica*, and aphonia *ab antipathia*, are ſymptomatic.

The treatment therefore is the ſame in each as that of the primary diſeaſe.

Genus CII. *Mutitas.*

Inability to utter articulate ſounds.

SECTION I.

OF THE SPECIES OF DUMBNESS.

1. *Mutitas paralytica* is a *paralytic* affection induced either by mechanical injury, or by preſſure. It frequently precedes or follows *apoplexies*, whether ſerous, ſanguine, or ſpaſmodic. The treatment in ſuch caſes therefore muſt be ſought for under *apoplexy*. The *mutitas traumatica* of Sauvage, deno-

minated mutitas atonica by Cullen, is *aphonia*, and not *mutitas*.

2. *Mutitas ſpaſmodica.* Hoffmann mentions ſeveral caſes of *mutitas*, which he calls *aphonia*, ariſing from the ſtimulus of worms in the firſt paſſages. He attributes the effect produced to ſpaſmodic contraction of nervous parts in the lower belly, by which the blood is impelled with force into the tongue, and there ſtagnating, preſs upon the nerves. This pathology may certainly be juſt, or the determination of blood to the ſuperior region may be cauſed by ſpaſmodic conſtriction of the diaphragm in the manner I have explained in *mania hyſterica*. But I am rather inclined to account for this effect by referring at once to ſympathy of parts. This conſent between the ſtomach and the tongue, may be maintained either by means of the firſt cervical, or by means of the intercoſtal, which ſends branches to the ſtomach, and the ninth pair, which diſtributes branches to the tongue.

Such caſes may be readily diſtinguiſhed by the common ſymptoms of worms, and eaſily cured by anthelmintics.

3. *Mutitas narcotica.* Loſs of ſpeech may ariſe from the action of narcotics, of opium, of atropa-belladona, of hyoſcyamus, or it may be induced by ardent ſpirits.

Highway robbers, in the vicinity of Montpellier, according to Sauvage, are ſaid to have compelled the

the perſons whom they plundered, to drink infuſion of thorn-apple (*datura ſtramoneum*), which rendered them ſpeechleſs for two days.

4. *Mutitas a ſiccitate.* Loſs of ſpeech may be cauſed by dryneſs, foulneſs, and inflexibility of tongue, as ſometimes occurs in malignant fevers.

5. *Mutitas ſurdorum.* Want of ſpeech in thoſe who are born deaf.

Theſe perſons may eaſily be taught to underſtand what is ſaid by watching the motion of the lips of any one who ſpeaks to them, and without much difficulty may learn to ſpeak. The firſt who taught this art was a Spaniſh monk. Ammanus of Amſterdam, and Wallis in London, followed in the ſame line. My old friend Henry Baker made ſome improvements, and Pereira was eminent at Paris; but the two gentlemen, who may be ſaid to have perfected this art, were the Abbé l'Epeé in France, and Mr. Bradewood of North Britain, the latter now eſtabliſhed at Hackney.

The Abbé, I underſtand, has publiſhed an admirable treatiſe on this ſubject, and it is to be hoped that Mr. Bradewood will not ſuffer his own obſervations and improvements to be loſt.

SECTION II.

CASES OF MUTITAS.

CASE I.

A young lady, aged 18, of a relaxed habit, florid countenance, and plethoric, having expoſed herſelf to cold whilſt her courſes were upon her; theſe were ſuddenly obſtructed, ſhe was ſeized with violent head-ach, and all the blood veſſels in her face became diſtended. She paſſed a reſtleſs night, and in the morning ſhe was ſpeechleſs. For four days ſhe ſcarcely eat or drank, and had little reſt at night. A phyſician ordered a clyſter to relieve her coſtiveneſs, and took three ounces of blood from the foot. As however ſhe continued ſpeechleſs, Hoffmann was conſulted.

Finding the pulſe frequent and full, he took away ſeven ounces of blood, and adminiſtered eſſence of caſtor, with aqua ammoniæ, and his mineral anodyne. Of this mixture he gave thirty drops every fifteen minutes in ſome infuſion of lilies of the valley. A ſtrong perſpiration ſoon broke out all over her body, the ſwelling of face ſubſided, her ſleep was refreſhing, and after continuing the medicine through the day, her voice was perfectly reſtored.

CASE II.

A man aged 80, of a ſpare habit, accuſtomed to loſe blood three times a year, but always healthy, was perſuaded, on account of the long continuance of exceſſive heat, to omit his uſual evacuation, till he was ſuddenly deprived of ſpeech, and of all ſenſation.

Hoffmann obſerving that his eyes were much inflamed,

and

and that his arteries beat ſtrong, ordered him to be bled immediately, to have an emollient clyſter, to take nitre in ſmall doſes at ſhort intervals, and to drink infuſion of balm, carduus, betony, with flowers of ſage, and roſemary.

Theſe medicines procured relief, and after ſome continuance perfected a cure.

Case III.

A healthy boy, aged 11, loſt ſuddenly the power of ſpeech, and was affected with ſpaſmodic conſtriction in the muſcles of his neck and back. For theſe complaints he took anthelmintics, antiſpaſmodics, and tonics, which brought away fifteen worms, but for five weeks left him ſpeechleſs.

Hoffmann being conſulted, ordered,

℞ Aſæ fœtid. Myrrh. Elect. Extract. Tanaceti, Rhei, Aloes, Calomel. aa ʒj. Extract. Croci, gr. vj. Eſſent. Caſtorei, q. s. ut f. Maſſ. Pilul. cujus ex ſcrupulo, f. Pill. xx. Quarum ſeptem bis in ſeptimana ſumendæ ſunt interjectis ſequentibus.

℞ Sal. Cathart. Amar. gr. xv. Nitri purific. Corallinæ, aa. gr. vj. M. f. Pulv. mane ſumend.

That is,

Aſa fœtida, myrrh, extract of tanſy, rhubarb, aloes, calomel, of each one dram; extract of ſaffron ſix grains; eſſence of caſtor ſufficient to make pills; of which take ſeven grains twice a week, interpoſing the following powders.

Take bitter purging ſalt fifteen grains, nitre and coralline of each ſix grains, for one powder.

Theſe medicines, with a ſtrengthening plaſter to his neck, ſoon reſtored the uſe of ſpeech.

Case IV.

Sauvage mentions a boy, who having paſſed, by the uſe of anthelmintics, thirty worms in twenty days, recovered his ſpeech which he had loſt.

Genus CIII. *Paraphonia.*

Depravation of Voice.

Dr. Cullen has ſix ſpecies, which are well diſtinguiſhed.

1. Paraphonia *puberum*, in which the voice, about the time of puberty, becomes harſh and diſſonant. It is curious to obſerve the proviſion made by nature to announce this internal change in the ſyſtem by external characters, for no ſooner does virility take place, than a beard begins to grow, and the tone of the voice ſinks four or five notes lower than it was before.

2. Paraphonia *rauca*, in which from dryneſs or flaccid tumor of the fauces, the voice becomes deep, hoarſe, and diſſonant.

In both theſe caſes the vocal chords, extended from

from the arytænoide to the thyroide and cricoide cartilages, may be perhaps unequally relaxed, and the muſcles, whoſe office it is to ſtretch them, may have loſt their tone. This opinion ſeems to be rendered probable from hoarſeneſs following exceſſive exertions of the voice, and being cured by tonics.

When hoarſeneſs is a ſymptom of catarrh, it muſt be relieved by attention to the primary diſeaſe.

3. Paraphonia *reſonans*, in which the noſtrils being cloſed, the voice is harſh and ſibilant.

This varies according as the noſtrils are cloſed by the velum pendulum palati; by mucus in coryza, and catarrh, or by a polypus, as happens ſometimes in venereal caſes.

4. Paraphonia *palatina*, in which the uvula is either wanting or divided, either naturally, or by eroſion of venereal virus. The voice is hoarſe, and in ſpeaking the countenance is much diſtorted. It may be relieved by a ſilver palate.

5. Paraphonia *clangens*, in which the voice is harſh, acute, and clangent, as in hectic and conſumptive patients, when ulcerous inflammation extends to the larynx, producing tenſion and immobility of the vocal chords.

6. Paraphonia *comatoſa*, *ſnoring* produced by inſpiring with the mouth wide open. The larynx deſcends; the tongue forms a deep channel longitudinally,

dinally, its baſis is depreſſed, and the velum pendulum, relaxed, bends downward. When the perſon ſnores with his noſtrils cloſed, the tongue expands, and makes a wider channel. When the mouth is ſhut, he cannot ſnore; nor can he ſnore with eaſe when the tongue is forcibly depreſſed and the noſtrils are cloſed.

Genus CIV. *Pſelliſmus.*

Vitious articulation reſpecting ſounds.

Dr. Cullen enumerates ſeven ſpecies, Sauvage eleven. I ſhall however pay little attention to the ſpecific names, and content myſelf with deſcribing ſuch defects as are moſt common, with their cure.

1. *Heſitation* is a trick, a contracted habit of attempting to ſpeak without clear and diſtinct ideas.

The beſt remedy for this defect is to ſtudy the mathematics, to watch againſt diſtraction of thought, and never to ſpeak upon any ſubject without having firſt thoroughly digeſted the arguments and facts to be adduced, with a connected method of arrangement. When the blackſmith is at a loſs where to direct his hammer, he ſmites upon the anvil.

2. *Stuttering*

2. *Stuttering* or *ſtammering.*

This likewiſe is a contracted habit.

The tongue has for its motion four pair of muſcles, beſide thoſe which belong to the os hu-oides, and innumerable muſcular fibres, by which it is contracted, expanded, elevated, or depreſſed, protruded forwards or retracted in a multiplicity of ways. Theſe will aſſiſt it among other offices to aſſiſt in forming letters, ſyllables, and words.

For the ſame purpoſe it is amply furniſhed with nerves, having two conſiderable branches from the fifth pair, and the ſame number from the ninth, beſide ſome filaments from the par vagum. Theſe with their numerous papillæ, when the epidermis has been removed, are diſcovered on the upper ſurface of the tongue, where the office aſſigned them is to direct its motions.

At this ample ſupply of muſcles and of nerves we cannot be ſurpriſed, when we conſider that, independently of directing the food in the acts of maſtication and deglutition, it is the principal modeller of ſounds in ſpeech. For although ſome of the letters only have been called linguals, whilſt others are denominated dentals, gutturals, and palatines, yet in every one of theſe the tongue is the prime agent, and muſt, by determinate motions, aſſiſt to form them all.

Yet when once the habit is acquired, no ſooner is a determinate motion of the tongue required, than it inſtantly obeys, and even ſeems to prevent volition,

volition, as the fingers of the muſician, without conſciouſneſs, find the ſtrings. All this now depends on habit; but let theſe aſſociated motions be thrown into confuſion by ſome nervous affection, producing diſcord and action, and the habit, inſtantly diſturbed, is no longer uſeful; the chain is broken, and calls for ſtrong mental efforts to renew it. In the muſician, who has learnt his art by rules, it may require a little recollection only to join the broken threads; or, by taking up the piece from the beginning, if his confidence does not fail ſo as to produce nervous affection and freſh confuſion in his aſſociations, he will get rid of his perplexity. But the ſtammerer, not having learnt to ſpeak by rule, cannot with the ſame facility extricate himſelf. With him all depends on habit, and as it is probable that ſhame, diſappointment, and diſtreſs, will produce the ſame effect more readily a ſecond time, it will be in vain for him to recommence a chain of thought and expreſſion, which, without tranquillity of mind, he will never be able to purſue.

For this reaſon Mr. Henry Baker, who taught ſtammerers to ſpeak plainly, always began with teaching them the alphabet by rule; then led them on to ſyllables, and from ſyllables to ſentences. When his pupils, whilſt reading or ſpeaking, began to ſtammer, he took notice by what letter they were thrown into confuſion, and ſtopped them inſtantly; he gave them time to recollect themſelves; and then made them practiſe ſingle words, or ſhort ſentences,

abounding

abounding with that letter. After this he made them repeat the ſentence often which had created their perplexity, but ſlowly at firſt, and with much deliberation, as muſicians practiſe, when they find their fingers at a loſs to execute new and difficult combinations in a piece of muſic.

By this method, employing three hours in a week, he cured the ſtammerer in the ſpace of a few months; and as from its ſimplicity he was apprehenſive that other teachers might adopt his plan, he exacted an oath from all his pupils that they never would reveal his ſecret.

In moſt caſes of ſtammering the nerves are affected, and the ſyſtem is too irritable. It is then truly a diſeaſe; belongs to the neuroſes; and, like all other ſpaſmodic affections, calls for medical aſſiſtance.

To effect a cure in ſuch caſes requires tonics, ſtrict temperance, with a generous diet, cool air, exerciſe, bitters, bark, ſteel, and the cold bath.

3. *Literal omiſſions and miſtakes.*

Some people have acquired a habit of omitting particular letters wherever they occur. The moſt common defect is to omit the R. Many drop both R and L, yet by a little attention they might recover both. For the R they need only raiſe their tongue to the roof of their mouth, and, breathing ſtrong, make its point vibrate; and by practiſing frequently ſuch tremulous motion of the tongue, they

they will acquire the habit of pronouncing this letter with facility. In the ſame method, by inquiring how other perſons move the tongue, they will learn to form every letter.

It is for want of this knowledge and attention, that many people ſubſtitute one letter for another, B for P, D for T, and F for V, or frequently L for R, and ſometimes even T for C and S for G, or the reverſe of theſe. From the ſame neglect it is that Frenchmen univerſally when they ſpeak Engliſh put T for Th.

Genus CV. *Strabiſmus.*

Squinting.

This habit is commonly acquired in the cradle, by being always in the ſame poſition reſpecting the place from whence light proceeds. It is however frequently brought on by imitation or by accident, ſuch as having a mark on one ſide of the noſe to attract the eye.

It is ſometimes the effect of weakneſs and of ſpaſm, in which caſe it calls for tonics; or it may be a *paralytic* affection, and require the ſame treatment with that diſeaſe.

When it proceeds from extreme near-ſightedneſs, or from the eyes having different focal diſtances for

for perfect viſion, it is incurable. But if it is cauſed by any removeable blemiſh of one eye, it belongs to ſome primary diſeaſe, and muſt therefore be conſidered merely as ſymptomatic.

The only mechanical contrivance in common uſe, and that certainly a valuable diſcovery, is, to have a maſk with two funnels or hollow cones, each with a ſmall apex to coincide with the axis of the orbit, one of which apertures may be occaſionally cloſed, in order to compel the moſt diſtorted eye to act. That however the eyes may be taught to aſſiſt each other in judging of magnitudes and diſtances, it will be ſometimes neceſſary to uſe a bandage, without theſe funnels, having only ſmall apertures directly in the viſual line; and in this caſe the perſon muſt be attentive to uſe both eyes at once.

Genus CVI. *Contractura.*

A permanenent and rigid contraction of a joint.

Of this we have two ſpecies; for the contraction may ariſe either from an affection of the muſcles, or from diſeaſes of the joints.

1. Contraction of the muſcles with rigidity, ariſing from,

A. *Inflammation,*

A. *Inflammation*, as in arthritis and rheumatic affections, which may terminate in oſſification.

B. *Spaſmodic affections*, particularly in *raphania*. Sauvage conſiders one ſpecies of *dry gangrene*, which he calls *necroſis uſtilaginea*, as originally ſpaſmodic, producing firſt rigid contractions, then atrophy and gangrene. This by his deſcription, although occaſioned by feeding on diſeaſed rye, from which it derives its appellation, ſeems to be the ſame diſeaſe with the *gangrene of old people*, ſo well deſcribed by Pott, and cured by the exhibition of opium in large doſes.

C. *Palſy* of the antagoniſt muſcles occaſioned by rheumatiſm, by colica pictonum, and particularly, in Bohemia, by the uſe of auſtere wines extracted from unripe grapes.

D. *Scurvy*, in the ſecond ſtage of which patients commonly loſe the uſe of their limbs from permanent contraction of the flexor tendons.

2. Contraction from ſtiffneſs of the joints, ariſing from *anchyloſis*. This may be produced in conſequence of deficient ſynovia; or the capſular ligament

may be offified; or the bones, after fracture, may be united by the proceſs of adheſive inflammation; or finally, exoſtoſes may be formed in conſequence of *rachitis*, of *ſcrophula*, or of the *venereal poiſon*.

Claſs IV. LOCALES.

Order IV. Apocenoses.

A ſuperabundant flux of blood or humours, without pyrexia or increaſed impetus of the fluids.

In this order we have ſix genera:

1. Profuſio. 2. Ephidroſis. 3. Epiphora. 4. Ptyaliſmus. 5. Enureſis. 6. Gonorrhœa.

Genus CVII. *Profuſio.*

Loſs of Blood.

This muſt be either paſſive hæmorrhage, of which I have already treated under the fourth order of the firſt claſs, or, as the effect of mechanical injuries, requires the aſſiſtance of a ſurgeon.

Genus

Genus CVIII. *Ephidroſis.*

A violent and morbid Sweating.

SAUVAGE has 20 ſpecies; but among theſe one alone is idiopathic. This, of which he met with three caſes, is independent of fever, and unconnected with any other viſible diſeaſe. He cured it by cathartics, acidulated drinks, and milk.

The other ſpecies, although merely ſymptomatic, I ſhall ſubjoin.

1. *Ephidroſis febrilis.* 2. *Ephidroſis febricoſa.* In the firſt of theſe the ſweating may be either critical and ſalutary, or it may be injurious; in which laſt caſe the coverings muſt be diminiſhed, or the patient may be taken out of bed. In the ſecond of theſe ſpecies, which is the ſymptom of intermittent or remittent fevers of a peculiar type, the fever is ſo far from being relieved by the ſweating proceſs, that it is aggravated, and that in proportion to the evacuation. It is cured by cathartics followed by the bark.

3. *Ephidroſis hectica.* 4. *Ephidroſis exanthematum.* 5. *Ephidroſis ſyncoptica.* 6. *Ephidroſis ſcorbuta.*

7. *Ephidroſis a ſaburra,* occaſioned by a load of indigeſted ſordes in the alimentary canal. I remember a remarkable caſe of this in Dr. Frampton, rec-

tor

tor of Bremhill in Wilts, who for many years had every night ſuch profuſe perſpiration, that his bed-clothes were as if they had been dipped in water. To this circumſtance he attributed his freedom from gout, to which he conceived himſelf to have a legitimate title. Sauvage records the caſe of one who, from verminoſe ſaburra, paſſed no leſs than forty pounds in one day by ſweat.

8. *Ephidroſis lactea.*

9. *Ephidroſis mellea*, of the colour and conſiſtence of honey.

10. *Ephidroſis vinoſa*, of the colour of red wine.

11. *Ephridoſis viridis.*

12. *Ephidroſis nigra.* 13. *Ephidroſis lutea.* Both theſe were produced by fulminating gold.

14. *Ephidroſis urinoſa.*

15. *Ephidroſis cruenta*, in ſcurvy, and from the arm-pits in patients of a relaxed habit.

16. *Ephidroſis cærulea*, in the paroxyſm of an epilepſy.

17. *Ephidroſis acida.* 18. *Ephidroſis arenoſa.*

19. *Ephidroſis lateralis.* This was obſerved in a woman, who through the whole courſe of her life, excepting the times of pregnancy, never had any ſweating on the right ſide, but always, whether ſpontaneouſly or by medicine, on the left.

For theſe remarkable caſes Sauvage quotes Bartholini, Haller, and other practitioners of eſtabliſhed credit.

Genus CIX. *Epiphora.*

Lachrymation.

The flow of tears may be cauſed either by ſuperabundant ſecretion, or by deficient tranſmiſſion to the fauces. The former may be occaſioned either by mental paſſions, by the ſenſe of pain, or by any ſtimulating ſubſtance either in the eye itſelf, or applied to the pituitory membrane, and exciting action in the lachrymal gland merely by conſent.

Deficient tranſmiſſion of the tears may be cauſed by want of action, obſtruction or compreſſion of the capillary tubes, which convey them from the angle of the eye to the lachrymal ſac, by ſimilar affection of the ſac itſelf, or by obſtruction of the naſal duct.

Hence the ſeveral ſpecies enumerated by Sauvage.

1. *Epiphora a pathemate*, as in acute diſeaſes, and in paſſions of the mind.

2. *Epiphora ophthalmica.* 3. *Epiphora calida.* Theſe accompany different ſpecies of *ophthalmia*, in which there is redneſs, heat, pain, and itching of the eyes. The cure is performed by curing the ophthalmia.

4. *Epiphora*

4. *Epiphora frigida*, follows inveterate ophthalmias, but is not attended by itching, heat, or pain. It may be occaſioned by hard ſtudy, and ſeems to ariſe from loſs of tone in the capillary tubes.

5. *Epiphora arthritica*, a ſymptom of retrocedent gout.

6. *Epiphora ab ectropio*, cauſed by inverſion of the inferior eyelid, whether by wounds, by combuſtion, by relaxation, or by internal excreſcences, which deſtroys the channel deſigned by nature to convey the tears from the ſecreting gland to the abſorbing tubes.

7. *Epiphora ex rhyade*, occaſioned by eroſion of the caruncula lachrymalis, producing pain, irritation, and ſpaſmodic conſtriction, of the ducts which convey the tears into the lachrymal ſac.

8. *Epiphora ex variolis*, produced by a puſtule of the ſmall-pox, which either ſimply obſtructs the lachrymal canal, or producing inflammation of the membrane, cauſes the oppoſite ſides of the ſac to adhere by the firſt intention.

9. *Epiphora ex ægilope.* 10. *Epiphora ab anchilope.* Theſe, as well as the preceding, when confirmed, produce *fiſtula lachrymalis.*

To underſtand the nature of theſe it will be needful briefly to explain the ſtructure and diſeaſes of the lachrymal canal. This I ſhall take the liberty

of doing from a manuſcript copy of moſt incomparable lectures on anatomy and ſurgery delivered by Mr. Cline, to which I ſhall ſubjoin ſuch obſervations as the ſubject may require, with the mode of treatment recommended by Mr. Wathen.

When the tears, ſecreted by the lachrymal gland, have performed their office in waſhing the cornea, to keep it conſtantly both clean and moiſt, they are conveyed by the eylids to the inner canthus, where two capillary tubes abſorb them. Theſe tubes proceed horizontally nearly a quarter of an inch, then open by two ſeparate orifices into the lachrymal ſac, which deſcending half an inch, enters a bony circle formed by the orbital and naſal proceſſes of the ſuperior maxilla, where the duct is much contracted; but having traverſed this narrow paſſage, it expands and enters the noſe by a large aperture, under the upper lamina of the *os ſpongioſum*. Here it ſerves to moiſten the inner membrane of the noſtrils.

This lachrymal duct may be obſtructed in a variety of ways.

A. By *viſcid mucus*, and then we have *anchilops lachrymoſo-mucoſus* of Sauvage. To remove this we may firſt empty the ſac by preſſure, then drop ſome detergent fluid into the eye, which will paſs into the ſac, and repeat this operation; or a ſurgeon may fill the ſac with quickſilver in the manner recommended by Mr. Blizard, and practiſed by my valuable friend Mr. Wathen, in Pall-mall.

B. By

B. By *pus*, which conſtitutes the *anchilops purulentus* of Sauvage. This begins with *inflammation* of the ſac, which is rendered evident by redneſs, heat, ſhooting pain, and pulſation in the tumor, and terminates in ſuppuration. During the inflammatory ſtage the antiphlogiſtic regimen muſt be purſued: but when pus is formed it may be waſhed away, as in the preceding caſe.

C. By *adheſive inflammation.*

D. By *granulations.*

E. By *caries and exoſtoſes*, as in ſcrophulous and venereal caſes, which obliterate the bony paſſage.

F. By *compreſſion* of polypus, hordeola, and encyſted tumours, which the ſurgeon muſt remove.

The conſequence of obſtructions in the lachrymal duct, however occaſioned, will be *epiphora*, that is a flux of tears trickling down the cheeks, where they cauſe irritation and inflammation with excoriation of the integuments; and the ſtimulus of diſtention in the ſac ultimately produces ulceration and an abceſs. Nature then having relieved herſelf, proceeds to heal the wound, and here perhaps the diſorder terminates. Should however the patient frequently relapſe, ſhe may yet at laſt effectuate her purpoſe, and then quietly repoſe.

My friend Mr. Wathen, in the year 1791, ſaw a

lady aged 61, who had a *fiſtula lachrymalis* for many years, which repeatedly broke and was healed by ſuperficial dreſſings. In this caſe, notwithſtanding the bones were known to be carious, and no means were ever tried either to open the natural paſſage or to form an artificial one, the obſtructed duct became pervious, the tears reſumed their proper courſe, and the ulcer healed.

When it becomes needful to open the lachrymal duct for the radical cure of *fiſtula*; the proper time for this operation will be, when the ſac is diſtended and inflamed, but before ulceration, or even the thickening proceſs has begun; after which a ſuitable probe muſt be introduced to remove the cauſe of this obſtruction. A golden tube may then be introduced, in the manner recommended by Wathen, which, as practiſed by him, or by his able partner and grandſon Mr. Phipps, occaſions little pain, is executed in a few minutes, and in four days is perfectly healed without leaving any veſtige of the wound.

Genus

Genus CX. *Ptyaliſmus.*

A Salivation.

SAUVAGE has 20 ſpecies, which it may be proper to enumerate.

1. *Ptyaliſmus nauſeoſus*, occaſioned by conſent of parts between the fauces and the ſtomach, when ſtimulated by indigeſted ſordes. It is cured by emetics.

2. *Ptyaliſmus a pyroſi*, differs from the former only in having acid taſte in the mouth and *heart-burn.*

3. *Ptyaliſmus a laxitate*, as in *paralytic* patients, and in drivellers. Relieved by tonics in every ſhape.

4. *Ptyaliſmus varioloſus*, in confluent *ſmall-pox* in adults, continuing commonly eleven days, and then ſucceeded by ſwelling of the hands. It is a ſalutary evacuation.

5. *Ptyaliſmus ſcorbuticus*, attending *ſcurvy*, to which it muſt be referred.

6. *Ptyaliſmus hypochondriacus*, a common ſymptom in melancholic patients, who acquire the habit of ſpitting, which increaſes indigeſtion, flatulence, coſtiveneſs, and loſs of ſtrength.

7. *Ptyaliſmus arthriticus*, cauſed by atonic gout, and ſometimes an attendant on gouty tooth-ach.

8. *Ptyaliſmus phthiſicus.* This may be regarded as one of the firſt ſymptoms of approaching *phthiſis.* It prevails chiefly in the mornings, and the ſaliva has a ſaltiſh taſte.

9. *Ptyaliſmus viridis,* which was obſerved by Dr. Huxham in a caſe of jaundice, and after continuing ſome time cured the patient of his jaundice.

10. *Ptyaliſmus aphthoſus,* attended a caſe of ſynocha with angina.

11. *Ptyaliſmus gravidarum,* attending the firſt months of pregnancy.

12. *Ptyaliſmus catarrhalis,* a ſymptom of catarrh.

13. *Ptyaliſmus a carie,* when the bones of either jaw are carious.

14. *Ptyaliſmus febrilis,* attended an intermittent at Leipſic.

15. *Ptyaliſmus ſyphiliticus,* occaſioned by venereal ulcers in the fauces.

16. *Ptyaliſmus mercurialis,* to be relieved by liver of ſulphur, as firſt practiſed by the ingenious Dr. Garnet of Harrowgate, and deſcribed in his letter to Dr. Beddoes.

17. *Ptyaliſmus a calculo.* Several inſtances have been recorded of ſalivation ariſing from calculi in the duct of the ſublingual gland, and ceaſing when theſe cretaceous concretions have been extracted.

18. *Ptyaliſmus*

18. *Ptyaliſmus purulentus.* In this ſingular diſorder the patient for more than three years diſcharged purulent ſanies from the maxillary ſinus, which were carious, yet in other reſpects he enjoyed perfect health.

19. *Ptyaliſmus urinoſus,* recorded by ſome writers of authority.

20. *Ptyaliſmus lapponicus.* It is a ſymptom of Lapland colic, which when moſt ſevere is terminated by ſpontaneous ſalivation.

Genus CXI. *Enureſis.*

Involuntary diſcharge of urine without pain.

SAUVAGE has nine ſpecies.

1. *Enureſis infantum.* Children of a weak and irritable fibre are moſt ſubject to involuntary diſcharge of urine, and particularly whilſt they ſleep. Such children from debility ſleep ſound, yet from irritation or diſtention in their bladder, are apt to dream that they are in a convenient place for this evacuation. The proper remedies are, 1. Tonics and aſtringents. 2. To drink little after dinner and nothing in the evening. 3. To make them empty the bladder before they go to bed. 4. To threaten and even puniſh them, when they tranſgreſs, for although

although the diſcharge is involuntary, yet ſtrong impreſſions made upon the mind when they are awake, will retain ſome influence on their actions when they are aſleep.

2. *Enureſis paralyticorum* ariſes from relaxation of the ſphincters, cauſed by compreſſion of the nerves. It is relieved by curing the primary diſeaſe.

3. *Enureſis hernioſorum*, occaſioned only when, by the action of the hernia, the ſphincters are prevented from contracting.

4. *Enureſis puerperarum*, ariſing from ulceration of the bladder in hard labour. This effect is produced by compreſſion of the neck of the bladder againſt the pubis by the head of the child, which brings on mortification of the part, and ſeparation by the ulcerative proceſs. This alſo has been frequently produced by unſkilful uſe of the forceps, when the operator has not only taken the pubis for his fulcrum, but has injudiciouſly continued his preſſure too long upon one ſpot.

5. *Enureſis calculoſa*, is cauſed either by a calculus in the neck of the bladder, by ſounding, or by dividing the ſphincter when cutting for the ſtone.

6. *Enureſis a fiſtula*. This ſometimes ariſes from virulent gonorrhœa, when venereal ulcers in the urethra admit urine into the cellular ſubſtance, where it produces abſceſs and fiſtula. If this communicates with the bladder the diſcharge of urine is inceſſant.

In

In this caſe the opening by the knife muſt be extenſive.

7. *Enureſis gravidarum.* This diſeaſe attends not only pregnant women in the laſt months of pregnancy, but thoſe alſo who have born many children. In the firſt caſe a proper ſuſpenſory bandage will give relief; in the latter tonics external and internal, general and topical, are called for.

8. *Enureſis catamenialis.* This caſe is curious; and ſhews that, in obſtructed catamenia, the hæmorrhagic effort, renewed monthly, although inſufficient to produce the deſired effect, excited action in the bladder by conſent of parts. The young lady in queſtion had been troubled with enureſis to the age of puberty; but when ſhe became a woman, ſhe remained for three years free from this complaint, till her courſes were ſuppreſſed by waſhing her feet in cold water. From this time every month for three nights ſhe had enureſis, with total want of ſleep, and eight days before this monthly period, and for as many after it, ſhe had head-ach, tumour in the hypochondria, and œdematous ſwelling of her feet, or even hæmoptyſis. But if at any period the flux of urine failed, then all theſe ſymptoms were much aggravated, and continued till enureſis was reſtored.

9. *Enureſis aſparganoſi.* From ſuppreſſion of milk after childbirth. It is cured by ſtrong cathartics.

Genus

Genus CXII. *Gonorrhœa.*

A preternatural Flux from the Urethra in Men.

Sauvage enumerates ſeven ſpecies, which Cullen has reduced very properly to four.

1. Gonorrhœa *dormientium*, in which the ſeminal fluid is emitted during ſleep, with erection and libidinous dreams.

To underſtand the nature of this affection, let the ſtudent conſult what has been delivered on ſleep, vigilance, dreaming, and delirium. He will then be able to trace the effect produced, to mental and material ſtimuli, to ſpices and ſpirits, or to wanton imaginations cheriſhed in the day.

For the remedy of this diſeaſe, I muſt refer him to what I have ſaid on *ſatyriaſis*.

2. Gonorrhœa *laxorum*, in which the ſeminal fluid is emitted during vigilance, with libidinous deſire, but without erection.

3. Gonorrhœa *pura*, in which the ſeminal fluid is emitted without erection or libidinous deſire, and when there has been no impure connexion.

This debilitating diſcharge produces, among other diſtreſſing ſymptoms, loſs of appetite, indigeſtion, flatulence, and coſtiveneſs; paleneſs, proſtration of ſtrength and atrophy; loſs of ſleep, head-ach, and

defective

defective memory; blindneſs, epilepſy, and palſy, with a depreſſion of ſpirits bordering on deſpair.

Patients may be reduced to this deplorable condition in conſequence of exhauſting diſeaſes, when theſe have produced relaxation, debility, and irritability, in the extreme, as in the caſe of *anaphrodiſia gonorrhoica* already mentioned; but it is commonly the puniſhment of vicious habits, whether of the ſocial or of the *ſolitary* kind. The treatment muſt be the ſame as in *ſatyriaſis*.

4. Gonorrhœa *impura*, in which, after improper connexion, a purulent diſcharge, attended by dyſuria, proceeds from the urethra. This afterwards is followed by increaſed ſecretion and the flux of mucus.

For the cure I muſt refer to *ſyphilis*.

Hoffmann has recorded eleven very intereſting *caſes* of gonorrhœa, from which I ſhall ſelect the following:

A young man, infirm from his infancy, and atrophic at the age of ſeven, recovering health and ſtrength, at the age of fifteen, learnt from a vicious companion an evil practice, in which, when alone, he daily indulged himſelf for many years, without ſuſpecting, till it was too late, that he had offered violence to Nature, and that ſhe never pardons the offender.

The firſt notice he received of her diſpleaſure was by ſuch excruciating pain as rendered him unable to walk. His underſtanding, memory, and ſight, were the next to ſuffer loſs; his pupils were wonderfully dilated, his eyes were diſtreſſed with pain, and their lids were daily cloſed with gluten;

gluten; ſo that for a length of time, although ſtudious, he was compelled to lay aſide his books, for he could neither write nor read. He became again atrophic to ſuch a degree that he was a ſkeleton; and although for two years he had the reſolution to abſtain from the practice which had made life a burthen, yet this reformation was followed immediately by nocturnal pollutions, and his ſufferings continued without the leaſt relief.

In this ſituation, at the age of 25, he conſulted Hoffmann, by whoſe advice he purſued the following plan.

Every morning he drank aſſes milk with Seltzer water, and every evening he took this powder.

℞ Cornu Cervi, pp. Os Sepiæ vel Chel. Cancr. aa, ℥ſs. Succini cum inſtillatione, Ol. Tart. per deliq. ppt. ʒij. Eleutheriæ Cort. ʒj. M. f. Pul. c. c. ʒj. ex aq. Ceraſor. nigr. Cyatho.

℞ Rhei. ʒj. Mannæ, ℥j. Nitri. Antimoniati, gr. 15. Coque et Solve leni Calore in Aquæ Selteranæ, ℥vj. Colaturæ, adde Ol. de Cedro, gtt. iij. M. f. H. quavis quinta die ſumend.

℞ Ligni Santali Rub. Citrini, Rad. Chinæ, Scorzoneræ, aa. ℥iv. Rad. Cochorei, ℥j. Cinnamom. ℥ſs. Maſtiches, ʒij. M. f. Species, Quarum, ℥ij. Ex tribus aquæ menſuris addito paſſularum minorum manipulo uno, per tres horæ quadrantes ſunt decoquendæ et cap. pro potu ordinario.

He was ordered to abſtain from ſalted meats, ſpices, and highly ſeaſoned diſhes, and from warm liquids. He drank infuſion of mint and balm in the morning, by way of tea, and, continuing for ſome time in the uſe of Hoffmann's viſceral balſamic elixir, he was within ſix weeks reſtored to perfect health.

Claſs

Class IV. LOCALES.

Order V. EPISCHESES.

Suppreſſion of Excretions.

IN this order we have five genera.

1. Obſtipatio. 2. Iſchuria. 3. Dyſuria. 4. Dyſpermatiſmus. 5. Amenorrhœa.

Genus CXIII. *Obſtipatio.*

Coſtiveneſs.

SAUVAGE, who to increaſe the number of his genera, too often multiplies diſtinctions without a difference, and conſiders ſymptoms as diſeaſes, has omitted *obſtipatio*, from a perſuaſion that we never meet with it as a primary affection: but in this he is miſtaken, as will immediately appear.

Linnæus, Vogel, Sagar, and Cullen, differ with him in opinion, and the latter very properly not only conſiders *coſtiveneſs* as a primary diſeaſe, but divides it into ſpecies.

1. Obſtipatio *rigidorum.*

In perſons of a robuſt and ſanguine temperament, who enjoy high health, and take much exerciſe, the

lacteals and *abſorbents* are extremely active. Hence it is that their alvine fæces are commonly dry, hard, compact, and that they are inclined to *coſtiveneſs*. Their pulſe is full and firm, their heat is high.

It is this ſpecies of coſtiveneſs which prevails in ſynocha.

The proper remedy for them is to keep their bowels ſoluble, by cathartics of the refrigerant and emollient clyſters, ſuch as caſſia, tamarinds, ſulphur, and tartariſed tartar, with prunes, manna, and, in urgent occaſions, caſtor oil.

II. Obſtipatio *obſtructorum*, with ſymptoms of *ſpaſmodic affection* in the bowels. Pulſe weak, ſmall, frequent, heat variable.

To explain the nature of this ſpecies I might refer the ſtudent to what I have ſaid on *colic*; but as this ſubject is of the laſt importance, I ſhall enlarge upon it.

It appears by the experiments and obſervations of Wepfer and Van Swieten that,

1. If, even after death, acrid ſubſtances, or any kind of ſtimulus, is applied to the inteſtines, they contract ſpaſmodically, not merely in the ſtimulated parts, but often in the adjoining parts, to a conſiderable extent, ſo as completely to obſtruct the paſſage. Van Swieten, with the point of his diſſecting knife, ſtimulated the ſtomach of a dog ſome minutes after the animal was dead, when it immediately and forcibly contracted to one ſixth of its antecedent capacity.

2. In

2. In living animals, acrid ſubſtances, ſuch as arſenic, exhibited internally, or corroſives externally, applied to the coats of the inteſtines, cauſe them to contract forcibly, permanently, and cloſely, as if they were tied with cords. And whilſt they are contracted in ſome parts, they are violently inflated in others, which being much diſtended become paralytic, and loſe their power of contracting.

Wepfer obſerved, that as long as the acrimonious ſubſtance continued in the bowels its morbid effects were permanent, and that as often as flatus was forcibly expelled it was reproduced immediately. When he had given half a ſcruple of corroſive ſublimate to a dog, which operated with violence both up and down, on opening the abdomen the inflated ſtomach came out, and being preſſed, diſcharged flatus by the mouth, but was ſoon again diſtended by freſh flatus.

He had occaſion likewiſe to obſerve, that if whilſt any part remained conſtricted a ſimilar irritation is produced in ſome freſh place, this part contracts, and the preceding conſtriction is relieved.

3. This conſtriction, with the conſequent inflatation and diſtention in other parts, is ſo permanent when ſtrong ſtimulants, ſuch as arſenic, or any virulent corroſive, has been applied to the inteſtines, that, in ſuch perſons as have died of colic, and in animals on whom theſe experiments were tried, Wepfer found it difficult to propel either the flatus

or the aliments contained between any two conſtricted parts.

The occaſional cauſes of ſpaſmodic conſtriction in the inteſtines may be, 1. *Inflammation*, for which I muſt refer to *enteritis* and *gaſtritis*. 2. *Irritation* of acrid ſubſtances, either taken into the alimentary canal or generated there, ſuch as bile or worms. 3. *Sympathetic affection* with other ſtimulated parts, as the kidneys in *nephritis*; for both which colic may be conſulted.

The cure may be performed by ſuch remedies as have been already recommended in thoſe diſeaſes.

III. Obſtipatio *debilium*, in weakly and relaxed patients, with pulſe ſlow and feeble; heat very low.

Bile is the natural cathartic. When this therefore is either defective or depraved, conſtipation of bowels will enſue. This we have obſerved in *jaundice*; and we have in the Philoſophical Tranſactions, for the year 1730, a curious caſe of a ſoldier wounded in the gall-bladder, who died of conſtipation.

But though the bile ſhould not be deficient, yet if we have viſcid mucus interpoſed between it and the living fibre, we ſhall have coſtiveneſs produced, as in *hypochondriaſis* and *melancholia*.

The nature of the *food* muſt likewiſe be conſidered; for if, inſtead of animal food, which ſtimulates the inteſtines, the patient ſhould have only rice, wheaten bread or milk, his bowels will be coſtive.

coſtive. Sauvage remarks on *teneſmus a ſcybalis*, that the efforts to evacuate the fæces in patients who live on milk, ſometimes reſembles thoſe of a parturient woman.

The proper remedy is to change the diet, and to give calomel at night, to be followed by either ſoluble tartar or infuſion of ſena in the morning. But for particulars let the ſtudent conſult *jaundice*, *hypochondriaſis*, and *melancholia*.

IV. *Obſtipatio paralytica.*

Dr. Cullen has taken no notice of this ſpecies; but it appears to me well-founded and needful to complete our catalogue.

In the *paraplexia traumatica* of Sauvage, a diſeaſe not uncommon about Montpellier, and often met with in Valencia and other countries, in which mulberry leaves muſt be daily gathered as the food of ſilk worms, the miſerable object, who, by his fall, has injured the ſpinal marrow in the lumbar vertebræ, loſes inſtantly all ſenſe and power of motion in the lower extremities, his urine flows ſpontaneouſly, and he has conſtipation in his bowels.

This caſe admits no remedy.

In *tympanites* we have *coſtiveneſs* ariſing from paralytic affection, with loſs of tone in ſome part of the inteſtines, the cure of which is to be ſought for in the uſe of aromatics and antiſpaſmodics combined with gentle tonics and aſtringents, as recommended in that diſeaſe.

Genus CXIV. *Iſchuria.*

Suppreſſion of Urine.

SAUVAGE in his ineſtimable noſology has, when treating of *iſchuria*, left us one perfect example of methodical arrangement; and Dr. Cullen, treading exactly in his footſteps, has judiciouſly divided this Genus into four ſpecies, each including numerous varieties.

I. Iſchuria *renalis*, preceded by diſorders of the kidneys, and attended by diſtreſſing weight, or pain in the region of the kidneys, but without either ſwelling of the hypogaſtrium or ſenſe of ſtimulus exciting to the diſcharge of urine from the bladder.

This ſpecies contains the ſubſequent varieties.

a. *Nephritica*, from inflammation of the kidneys.

The ſymptoms and the cure may be ſeen under *Nephritis*.

b. *Nephrolithica*, from calculi, has ſimilar ſymptoms with the preceding variety, but not the pyrexia. It is preceded commonly by a diſcharge of gravel, of mucus, or of blood, and immediately by pale and ſtimulating urine in ſmall quantities.

The

The treatment muſt be the ſame as in the preceding, and, to prevent relapſe, the lithrontriptics mentioned in my Vade Mecum, particularly the *aqua mephitica alcalina*, muſt be reſorted to.

Sir John Pringle was accuſtomed to preſcribe the following.

℞ Terebinth. Venet. v. o. s. dr. 4. Decoct Comm pro Clyſt. un. 4. Ol. Olivar. Syr. e Spin. Cervin. aa. un. 1. M. f. Enem.

℞ Sem. Lini, un. 1. Pulo Glcyr. dr. 6. Aq. bul. q. s. infunde prope ignem, per horas 12. Cola ℔ 2. Cap. un. 3. ſæpius.

℞ Rad. Pareiræ brav. un. 3. Aq. Font. ℔ 1½. Coque ad 1 Colat. c. un. 2. ter in die.

c. *Nephroplethorica*, from plethora, without either pain or pyrexia, and not preceded by any ſymptoms of morbid affection in the kidneys. In the caſe recorded by Riverus, it was, by a long journey in the hotteſt days in ſummer, perfectly relieved in leſs than one hour after a copious bleeding.

d. *Lunatica*, returning periodially at the full of the moon and vaniſhing in five days, unleſs previouſly cured, as it never failed to be by venæſection. In the caſe referred to by Sauvage, the pelvis of the left kidney was found to be as large as the urinary bladder.

e. *Nephroſpaſtica*, from ſpaſmodic affections, as in hyſterical patients and in young people of an irritable fibre, when cutting teeth, menſtruating, or ſuffering by other morbid ſtimuli in the ſyſtem.

For the treatment conſult what has been ſaid on ſpaſmi and ſpaſmodic diſorders in the firſt volume.

f. *Nephrelmintica*, from worms in the kidneys.

g. *Nephrothromboides*, from clotted blood, preceded by bloody urine, and occaſioned by mechanical injury or by violent exertions. It is attended by paleneſs, ſmall pulſe ſcarcely to be felt, extreme debility, rigor, nauſea, and ſlight fever, with cold ſweats.

h. *Nephropyica*, to be known by the hiſtory of the caſe, and by a purulent diſcharge through the urinary paſſages. De Haen recommends *uva urſi*.

i. *Nephrophlegmatica*, in cold phlegmatic habits, diſcovered by the diſcharge of mucus, and cured by diuretics of the ſtimulant order, by emetics, by cathartics of the calefacient and aſtringent orders, aſſiſted by horſe exerciſe.

k. *Nephroplegica*, from *Palſy*.

l. *Suppleta*, from diarrhœa, or exceſſive perſpiration, preventing determination to the kidneys.

kidneys. Many caſes are recorded, by authors of the moſt reſpectable authority, of patients who for years had no evacuation either by urine or by ſtool, whilſt their perſpiration was enormouſly increaſed; and Platerus mentions a girl of thirteen years of age, who for many days had a diſcharge of water from her ear, which ſupplied the place of urine.

II. Iſchuria *ureterica* is in many caſes ſcarcely to be diſtinguiſhed from the former. Dr. Cullen has adopted ſix varieties from Sauvage, coinciding in occaſional cauſes with as many of the preceding ſpecies. But the moſt common is the *calculoſa*, cauſed by calculi in their paſſage through the ureters.

The ſymptoms are pain, nauſea, vomiting, coſtiveneſs, coldneſs of the extremeties, numbneſs of the thigh, retraction of the teſticle, followed ſometimes by convulſions or by ſyncope.

The proper treatment is by warm bathing, clyſters, which carry a warm fomentation to the part, *demulcents* and opium in repeated doſes, till the ſpaſm is relieved. Electric ſhocks ſent through the loins have ſeldom failed to expedite the paſſage of calculi into the bladder.

The following *demulcent* mucillage may be uſeful in this ſpecies of iſchuria.

℞ Gum. Arab. Tragacanth. aa ʒij. Aq. Font. ℔j. Syr. ex Alth. ℥j. M. Cap. Cochl. iij. Sæpius.

Take gum arabic and gum tragacanth, of each two drams; water, a pint; ſyrup of althæa, an ounce. The doſe may be three ſpoonfuls often in the day.

If the patient is plethoric, he muſt loſe blood; and if the heat is high he muſt take ten grains of nitre two or three times a day. If the heat is moderate, 20 or 30 drops of balſam of copaiva may be given twice a day.

III. Iſchuria *veſicalis*, with ſwelling of the hypogaſtrium, pain at the neck of the bladder, and frequent veſical teneſmus.

This ſpecies contains the ſubſequent varieties.

a. *Cyſtitica*, from inflammation of the bladder. See *Cyſtitis*.

b. *Cyſtolithica*, from ſtone in the bladder. The ſymptoms are wandering pain and titillation about the pubis and the perinæum, with a ſenſe of weight in the perinæum, erections, teneſmus, *dyſury*, bloody urine, more eſpecially after riding, with its frequent yet interrupted diſcharge. But the moſt certain ſymptom is obtained by ſounding.

Relief may be obtained by uva urſi, two ſcruples given twice a day, or this may be mixed up with conſerve of roſes, as recommended in my Phyſician's Vade Mecum. But the moſt effectual cure is by ſolvents. Theſe are alkaleſcents, which decompoſe the ſtone.

It

It is well known that urinary calculi are compoſed of calcareous earth, animal gluten, and phoſphoric acid, all which principles are derived from the animal and vegetable ſubſtances on which we feed. Theſe conſtitute the bones. But as the bones, which may be demonſtrated, are conſtantly renewed, the old materials are taken up by the abſorbents, and conveyed out of the ſyſtem with other excrementitious matters by the kidneys. Here calculi are formed, and from thence by the ureters fall into the bladder, where by collecting freſh matter, unleſs evacuated, they increaſe conſtantly in ſize.

When ſuch calculi are expoſed to the action of mild alkalis, a double decompoſition takes place, and new combinations are effected, for the alkali unites with the phoſphoric acid, whilſt the calcareous earth, ſaturated with carbonic acid, becomes carbonate of lime, and both ſalts are very ſoluble in water.

If you take ſalt of tartar half a dram every two hours, after the third or fourth doſe your urine will become turbid, calcareous earth will be precipitated from its phoſphoric acid, and this urine will turn ſyrup of violets green; or, if on freſh urine you put lime water, phoſphat of lime will be precipitated.

Various have been the forms in which alkaline ſubſtances have been exhibited by different practitioners, Stephens, Jurin, Lane, Chittick, and Blackerie, and others ſubſequent to theſe; but the moſt

moſt efficacious has been proved to be the *aqua mephitica alkalina* recommended by Dr. Falkoner.

Reſpecting Mrs. Stephen's ſolvent, it is curiouſly obſerved by Mr. Cline in his Lectures, that a patient, being ſearched by the ſurgeons of Bartholomew's hoſpital, was declared to have the ſtone in his bladder, and having taken this ſolvent was turned out as cured; in conſequence of which ſhe received five thouſand pounds from parliament: but ſome time after this he died, when, being examined, the ſtone was found incyſted in his bladder.

Aqua mephitica alkalina, in ſufficient quantity, may be conſidered as infallible; for even the largeſt ſtones in a few months have been diſcovered to be ſoft, others have been eaten through like a ſponge, and in moſt caſes they come away perfectly diſſolved. The common doſe is half a dram of kali to three ounces of rain water, impregnated with carbonic acid by means of Parker's machine, and taken twice a day; but four times that quantity may be given with ſafety and with good effect. The late Dr. Crawford took no leſs than one ounce of kali every day without any ſenſible inconvenience to himſelf.

For the benefit of the poor, Dr. Beddoes has very ingeniouſly contrived to give an alkali in the form of pills; and this preparation, which I have introduced in *jaundice*, may be found under that diſeaſe.

Dr. Fordyce in his lectures recommended thirty grains of kali to be taken every day, and delivered it as his opinion, that a larger quantity will not produce more

more effect. He ſays that benefit will be found from this ſmall quantity in ſix weeks.

Dr. Percival ſpeaks highly of ſoft water, and aſſures us, that Malvern ſpring diſſolves calculi without other medical aſſiſtance.

c. *Cyſtoſpaſtica* from *ſpaſm* in the ſphincters of the bladder, which may be either idiopathic or ſympathetic, and muſt be diſtinguiſhed by attention to the remote cauſe.

Spaſmodic affection is one of the moſt common cauſes of iſchuria, and is often to be blamed when *caruncles* ſtand accuſed of this effect. For when there is an ulcer in the bladder or in the proſtate gland, any acrimony in the urine, ſuch as a prevailing acid, will occaſion ſpaſm. Dr. Ingenhouſz had a patient, whom he cured by *aqua mephitica alkalina*. This gentleman had an ulcer in the proſtate gland, and his ſagacious phyſician detected a predominant acidity in his urine by means of what he calls his *charta probatoria*, which is a ſtrip of paper dyed with *litmus*, for this, before he took the alkaline water, was turned red by the urine, and afterwards, when the urine became ſaturated with alkali and ceaſed to irritate the ulcer, was always blue.

For more general information reſpecting the cure conſult *ſpaſm*.

d. *Cyſtoplegica*,

d. *Cyſtoplegica*, from *palſy* of the bladder. See *obſtipatio paralytica*.

e. *Polyurica*, from diſtention after long retention of the urine.

It is cured effectually by the introduction of a catheter, and if neglected terminates in inflammation, gangrene, death.

f. *Cyſtopyica*, from ulcerations in the bladder, and requires demulcents, with the *aqua mephitica alkalina*.

g. *Cyſtothromboides*, from clotted blood, to be diſtinguiſhed by antecedent ſymptoms.

h. *Cyſtophlegmatica*, from mucus; conſult *nephrophegmatica*.

In both theſe caſes the catheter muſt be introduced.

i. *Ectopocyſtica*, from hernia of the bladder or from prolapſus of its interior tunic.

k. *Cyſtoproctica*, from preſſure by the rectum inflated, inflamed, diſtended by hardened fæces, or obſtructed by hæmorrhoids.

l. *Hyſterocyſtica*, from preſſure of the uterus when gravid, diſtended by tumours, or prolapſed.

m. *Atretarum*, from preſſure ariſing from retention of the menſtrual flux in the vagina, and requiring aſſiſtance from the ſurgeon.

IV. Iſchuria *urethralis*, with ſwelling of the hypogaſtrium, frequent veſical teneſmus, and pain in ſome part of the urethra.

This ſpecies contains the ſubſequent varieties.

a. *Perinæalis*, from ſome tumour in the perinæum, whether indolent or inflammatory, and to be treated accordingly.

b. *Urethrolithica*, from calculus in the urethra, eaſily to be diſtinguiſhed, and to be cured either by venæſection and opium, by anodyne and relaxing fomentation, by oil injected, or by the knife.

c. *Urethrophlegmatica*, from mucus in the urethra.

d. *Urethromboides*, from clotted blood.

e. *Urethropyica*, from pus in the urethra.

f. *Urethrohymenodes*, from a membrane cloſing the urethra.

g. *Urethrelmintica*, from a worm cloſing the urethra.

h. *Urethritica*, from *inflammation* in the urethra.

i. *Carunculoſa*, from fungus, calloſity, and ſcirrhous tumours either of the canal, or of the proſtate glands, in which the cauſtic recommended by John Hunter is infallible, but requires a very ſkilful hand to introduce it.

k. *Hydrocelodes*,

k. *Hydrocelodes*, from rupture of the urethra opening into the ſcrotum.

l. *Cryptopyica*, from the retraction of the penis into the body.

m. *Perideſmica*, from ſtricture by a thread, an expedient adopted by weakly and timid boys to prevent watering their beds.

n. *Phimoſica*, from phimoſis, or cloſing of the prepuce by inflammation.

o. *Aſpadialis*, from the cloſing of the urethra, ſo as to obliterate the paſſage.

Many of theſe varieties were ſingular caſes; in none of them can the ſurgeon be at a loſs to know what is indicated to effect a cure.

Genus CXV. *Dyſuria.*

Difficulty and Pain in diſcharging Urine.

This many authors have denominated *ſtrangury*. Dr. Cullen has ſix ſpecies, which embrace fifteen out of ſeventeen diſtinguiſhed by Sauvage.

I. Dyſuria *ardens*, with ſenſe of heat, but without any evident diſeaſe of the bladder. It is induced either by ſpices, ſpirits, cantharides, immoderate exerciſe, or mechanical injuries, and is cured by demulcents,

or, when urgent, requires the antiphlogiſtic regimen. Sir John Pringle was uſed to give the ſubſequent emulſion.

℞ Camph. gr. xv. Armygd. Dulc. Decort. n. iij. Simul. Tritis, adde Paulatim. Aq. Font. q. s. Colat. Solve Salis Rupell. ʒiij. M. f. Emulſio c. c. Co. iij. Tertia quaque horâ.

That is,

Camphor fifteen grains; three ſweet almonds ground together, with ſufficient water to make an emulſion; Rupell ſalt three drams... Take three ſpoonfuls every three hours.

II. Dyſuria *ſpaſmodica*, from ſpaſmodic affection of the ſphincter cauſed by conſent. The common occaſional cauſes of *ſpaſm* may be ſeen in my firſt volume. This ſpecies includes the ſubſequent ſpecies of Sauvage, which, as being ſymptomatic, may be referred to their primary diſeaſes.

a. *Dyſuria hyſterica*, a ſymptom well deſcribed by Sydenham in his treatiſe on hyſteria as ſometimes miſtaken for calculus.

a. *Dyſuria nephralgica*, occaſioned by irritation in the kidneys, whether from calculi or from acrimonious urine. This includes the *dyſuria ab ulcere renum* of Sydenham.

b. *Dyſuria rachialgica*, from irritation in the bowels, producing colic. Citeſius, from whom

whom Sauvage has taken this diſeaſe, recommends emetics and draſtic cathartics, with oily preparations interpoſed between them.

d. *Dyſuria diabetica*, which ſeems to be the ſame with *hyſterica*, with this diſtinction, that limpid urine is diſcharged only the inſtant food has been received into the ſtomach. Dr. Doulas, who deſcribes this diſeaſe, ſaw it in an hyſterical patient, in whom it continued for many months without thirſt, but attended by atrophy and nocturnal feveriſhneſs.

e. *Dyſuria herpetica*, from ſuppreſſion of herpetic eruptions. Dr. Cullen has taken no notice of this, but it ſeems to be of kin to the *hyſterica*, and it certainly belongs to the *ſpaſmodica*.

III. Dyſuria *compreſſionis*, from the preſſure of adjoining parts, as in pregnancy; hernia of the bladder; obliquity of the womb; or retention of menſtrual blood, occaſioned by imperforation of the hymen.

IV. Dyſuria *phlogiſtica*, from inflammation of adjoining parts. This may be induced by *inflammation* of the urethra, or by phlegmonic affection of the proſtate glands, as happens frequently in *ſyphilis*; by *hæmorrhoids*, when protruded from the anus, they

they ſtretch the nerves of the urethra; or by *hyſteritis*. For all theſe the primary diſeaſe muſt be conſulted.

V. Dyſuria *irritata*, with ſigns of ſtone in the bladder. See *iſchuria veſicalis*.

VI. Dyſuria *mucoſa*, with copious diſcharge of mucus. Lieutand calls this diſeaſe a *catarrh of the bladder*; and Hoffmann, who was conſulted in one caſe, calls it a moſt rare affection. In the caſe recorded by him, the hæmorrhoidal flux was converted into *dyſuria mucoſa*. This learned profeſſor recommended Spa water, caſcarilla bark, with eſſence of amber; and for the common beverage, a decoction of liquorice, ſarſaparilla, ſcorzonera, and chicory roots, with fennel ſeeds.

Genus CXVI. *Dyſpermatiſmus.*

Seminis in actu venereo tarda, impedita, et ad generationem inſufficiens emiſſio.

The ſtudent, ſhould he happen to be conſulted in ſuch caſes, muſt conſider what is the condition of the urethra. If that is free from diſeaſe and pervious, his enquiries will be directed to three points.

1. To debility and deficiency of vigour.

2. To irritability and ſpaſmodic affection.

3. To exceſs of vigour.

In the firſt caſe tonics and aſtringents are required; in the ſecond, antiſpaſmodics, combined with tonics; in the third caſe, evacuants, ſtrict temperance, and refrigerants; that is, acids and aſceſcents muſt conſtitute the chief articles of diet. In this way the noble young Venetian, who by his ambaſſadors conſulted all the moſt eminent practitioners in Europe, was at laſt relieved.

Genus CXVII. *Amenorrhœa.*

Menſes wholly or partly obſtructed, without Pregnancy.

That this excrementitious diſcharge ſhould be regular as to quantity and quality, and that it ſhould obſerve the monthly period, is eſſential to health. When it is obſtructed, nature makes her efforts to obtain for it ſome other outlet, either by the eye, the ear, the gums, even by a carious tooth, by the ſtomach, the lungs, the bladder, or even by the tip of a finger; and from whatever part it is evacuated, it has the ſame property of not coagulating,

ing, like living blood. Nay, ſo important is this property, that if twice the uſual quantity is evacuated with the power of coagulation, even from the ſame veſſels, the ſame benefit is not received, much leſs when taken from other veſſels by the lancet. See Hunter on the Blood.

When theſe efforts of nature fail, the conſequence may be, 1. Pyrexia and pulmonic affection, which may terminate in phthiſis. 2. Spaſmodic affections, hyſteria, epilepſia, mania, apoplexia. 3. *Chloroſis*; according to the general habit and diſpoſition of the patient.

Hence three ſpecies of amenorrhœa naturally preſent themſelves to our conſideration.

I. Amenorrhœa *plethorica*, with a full ſtrong pulſe.

Van Swieten in his comment has the ſubſequent remark.

In the plethoric we obſerve good blood and veſſels pervious, yet ſo diſtended, that they cannot re-act on their contents. But as ſoon as by venæſection the quantity of blood has been diminiſhed, the action of the veſſels is renewed, and even whilſt the blood is flowing from this vein the menſes have been ſuddenly reſtored. To ſuch patients ſtrict temperance, or even a vegetable diet, with much exerciſe, muſt be preſcribed.

II. Amenorrhœa *ſpaſmodica*, in irritable habits, and attended by other ſpaſmodic affections. The

predisponent cause is debility. The occasional causes are either sudden frights, or the action of cold at the time of menstruation, as happens after dancing in warm rooms, then drinking cold liquids, washing in cold water, or being suddenly exposed to the natural air. This seems to induce spasmodic action in the extremities of the uterine arteries. The proper *emmenagogues* in this species seem to be antispasmodics, such as assafœtida, myrrh, camphor, castor, and the warm pediluvium, in the application of which last we may profit by the cautions of the judicious Hoffmann. If the pulse is full, he recommends venæsection, and if the feet are cold, he advises friction, before immersing them in warm or even in tepid water. But though antispasmodics are thus indicated, the most effectual means of relieving constriction in the extreme arteries is by increasing their action, which may be accomplished by stimulants and tonics. The best stimulant in this case is electricity, and the most efficacious tonic is steel and *vital air*, to which must be added exercise, and a generous diet.

III. Amenorrhœa *atonica*, with weak pulse and a relaxed fibre. We have here a general flaccidity of the system, and consequently debility, with torpor causing weak action in the vessels of the uterus.

In this species the indications of cure are, to restore tone to the system in general, and to excite the action of the uterine vessels in particular. The tonics

tonics are the ſame as in the preceding ſpecies, and the moſt efficacious form for exhibiting the ſteel is in filings mixed with conſerve of roſes. Five grains of the filings may be given three times a day, increaſing the doſe. This wonderful and univerſal diſtributor of *oxygen* reſtores vital heat to the extremities, and colour to the cheeks, raiſes the ſpirits, increaſes both the appetite and ſtrength, and in a few weeks makes the catamenia flow.

I have very often preſcribed the ſubſequent

℞ Ferr. Vitriolat. ʒj. Sach. Alb. ℥ij. M. f. Pulv. c. c. ʒj. Ter in die ſuperbibendo, Aq. Pulegii, ℥ij.

Take green vitriol a dram; white ſugar two ounces; mix. The doſe is one dram three times a day in penny-royal water. To be continued.

For the encouragement of the ſtudent, I can venture to aſſure him, that in thirty years experience, theſe chalybeates have never failed to cure, even when hectic had appeared, and ſymptoms of phthiſis had created much alarm for the ſafety of the patient.

Some practitioners place their chief dependance on exciting the uterine veſſels by conſent with the rectum, when ſtimulating emmenagogues are paſſing through the alimentary canal; but I have never had recourſe to theſe.

As to the *amenorrhœa difficilis* of Cullen, in which

the catamenia flow ſparingly and with much pain, we may remark from Dr. Fothergill, that the patient may take purified opium one grain every hour till the pain goes off.

For further information I muſt refer the ſtudent to the caſes and obſervations of Dr. Whytt, in his ineſtimable treatiſe on nervous diſeaſes, from page 176—182.

Claſs IV. LOCALES.

Order VI. TUMORES.

Partial Swellings without Inflammation.

THIS order comprehends fourteen genera.

1. Aneuriſma. 2. Varix. 3. Ecchymoma. 4. Schirrus. 5. Cancer. 6. Bubo. 7. Sarcoma. 8. Verruca. 9. Clavus. 10. Lupia. 11. Ganglion. 12. Hydatis. 13. Hydrarthus. 14. Exoſtoſis.

Genus CXVIII. *Aneuriſma.*

A ſoft Tumour on Arteries with Pulſation.

THIS may be either active or paſſive, either from increaſed action of the blood againſt the coats of the artery, or from diminiſhed reſiſtance of theſe coats when

when they have been ſtrained, bruiſed, or wounded. The former always happens near the heart, the latter in the extremities. By an invariable law of the animal economy, preſſure on a part produces its abſorption. But here it is curious to obſerve the efforts of nature to relieve herſelf. When an aneuriſmal ſack in the aorta preſſes againſt the back-bone, the abſorption begins at the external ſurface of the artery, where it comes in contact with the bone, and continues till the whole is abſorbed, leaving the bone in contact with the blood. The ſurrounding parts then ſtrongly unite by the adheſive proceſs, and form a channel for the blood, which channel is thus preſerved intire, even when the bones themſelves have been abſorbed in conſequence of preſſure.

Thus it ſometimes happens where no aſſiſtance can be derived from art. But ſhould the aneuriſm be near the ſurface, the ſkilful ſurgeon will continue to aſſiſt the weakened artery, and to reſiſt the preſſure of the blood, till the coats of the artery have recovered their tone.

My friend Mr. Gimbernat, of Madrid, has contrived an inſtrument by which he has cured many deplorable caſes of aneuriſm in the popliteal artery. It is compoſed of a ſteel plate perforated in the middle by a ſcrew to regulate the preſſure, and kept in its place by two ſteel rings, the ſuperior ring to graſp the thigh immediately above, and the inferior ring to embrace the leg juſt below the knee. Each

ring conſiſts of five pieces, of which one, rivetted to the ſteel plate, is connected with two others by horizontal joints to admit of bending the knee, either in ſitting or in walking. From theſe proceed two other pieces, with which they are connected by perpendicular joints, and which being opened, admit the limb. Theſe might claſp together in a variety of ways, but for the ſake of neatneſs, and that the ſame inſtrument may be adapted to a leg of any ſize, one piece enters into the other and catches by a ſpring. The end of the ſcrew which perforates the plate is rivetted to a ſmaller plate, which ſupports the pad or compreſs, and thus the patient can give that degree of preſſure which is needful to ſupport the weakened part.

By ſimilar contrivances he relieves other caſes of aneuriſm, even that of the carotid arteries. In recent caſes this method has made perfect cures, and in caſes of long ſtanding it has prevented rupture of the artery. When this however fails, relief may be procured by *double ligatures* above the aneuriſm, in the manner firſt practiſed by John Hunter.

Genus

Genus CXIX. *Varix.*

A ſoft tumour on veins without pulſation.

When varices preſs upon the bones they ſhould be either relieved in the manner already deſcribed in caſes of aneuriſm, or when that proves ineffectual they muſt be extirpated.

Of *hæmorrhoids* I have already treated in my firſt volume, under hæmorrhages, the fourth order of the pyrexiæ. For external application the Spaniſh phyſicians recommend their unguentum malorum inſanorum; but as that fruit is not to be obtained in England, the ung. alb. camphorat. with a few drops of ol. buxi, may ſupply its place. To this a few drops of laudanum may be added, if occaſion ſhould require it.

To keep the body cool and open give the following to the ſize of a nutmeg twice a day.

℞ Elect. Linitiv. un. 2. Flor. Sulph. dr. 3. Nitri. puri, dr. 2. Magneſ. Alb. dr. 1. Ol. Carui, gtt. 3. Syr. ex Althæ. q. s. f. Elect. c. c. M. N. M. bis die.

Genus

Genus CXX. *Ecchymoma.*

A black and blue ſwelling either from a bruiſe, or from morbid extravaſation of blood, as in typhus, the plague, and ſcurvy.

When ſuch injuries have been received as naturally produce extravaſation, the part ſhould inſtantly be kept warm as blood, and if it is a part which can be immerſed, it ſhould be ſteeped for a conſiderable time in brandy. In this way I have ſeen the worſt contuſions paſs without the leaſt appearance of extravaſated blood.

But if extravaſation has taken place, and to a great extent, we muſt have recourſe to venæſection and moderate cathartics with warm diluents, a cool regimen and topical applications in the form of poultice or fomentations, to keep the parts warm, and gently to ſtimulate the veſſels.

If the tumours get leſs, and do not inflame, they may ſafely be left to nature, for the abſorbents will take up the extravaſated blood. Even ſhould inflammation follow, we muſt ſtill endeavour to promote a reſolution of the tumour, which may be frequently obtained by *preſſure*, when applied to a degree juſt beyond the point of eaſe, for this ſets the *abſorbents* of the part to work for the purpoſe of removing, when it is removeable, the preſſing ſubſtances,

ſtances, one of which in the preſent caſe is the extravaſated blood.

Should however theſe attempts be fruſtrated, the inflammation may be ſafely left to ſuppurate; after which it will be treated as an *ulcer*.

Genus CXXI. *Scirrhus.*

A hard tumour commonly of a glandular part, indolent, and not readily ſuppurating.

THE proximate cauſe ſeems to be want of action in the veſſels of the part affected. This we collect from a conſideration of the remote cauſes, which are ſuch as either debilitate the ſyſtem in general, or deſtroy the tone of the veſſels in parts ſubject to their action. The ſame appears from hence, that weakly, relaxed, and *ſcrophulous* patients, with women at the change of life, are moſt liable to have indurated glands.

The indications of cure, naturally deduced from this view of the diſeaſe, will be to excite the action of the abſorbents.

This may be accompliſhed by evacuants, which excite their action by conſent, accompanied by topical applications, and followed by general tonics.

For an evacuant we cannot have one more efficacious in this caſe than calomel, which may be taken

taken at night, and carried off in the morning by a gentle cathartic of rhubarb, ſenna, and cream of tartar.

Many, for the external application, uſe mercurial ointment. Van Swieten recommends acetous fomentations, and a liniment compoſed of gum ammoniac with vinegar of ſquills, which he adopts from Hildanus, and the form of which I find preſerved by Hoffmann.

Gum Ammon. un. 1. Olei Amygdalar, et Olei Liliorum Alb. Pinguedinis Gallinæ ana un. 2. Succi Cicutæ, un. 4. Aceti Scillet. un. 2. M. et digere per 24 horas, et ſpiſſum fiat linimentum.

Dr. Simmons, in a caſe of ſcirrhous teſticle, gave hemlock (conium maculatum) in powder, beginning with a ſcruple, and increaſing the doſe to a dram a day, and at the ſame time corroſive ſublimate a quarter of a grain per day, and in fourteen days the ſcirrhus began to mend.

In the ſouth of Spain the phyſicians aſſured me, that they found the conium maculatum very efficacious in curing the ſcirrhous tumours, more eſpecially when aſſiſted by mercurials. Certain it is that the conium in warm climates is a more active medicine than it is in our more temperate and humid iſland.

All this muſt be underſtood of recent caſes; for when the inveterate ſcirrhus is much enlarged, and becomes hard like ſtone, the preceding remedies

would come too late, and nothing remains but either patience or the knife.

This however is not the case in one species of scirrhus, the *bronchocele*, for that, when even inveterate, may be carried off by the absorbents.

Sauvage, who makes *bronchocele* a genus, includes in it four species.

1. *Bronchocele botium*, which I should rather call *bronchocele steatomatosa*.

2. *Bronchocele ventosa*, which belongs to *pneumatosis*.

3. *Brochoncele sarcoma*, which I suspect to be *steatomatous*.

4. *Bronchocele aquosa*, the only species noticed by Boerhaave, which belongs to *anasarca*.

The scirrhous bronchocele is clearly steatomatous, and as such may be speedily cured by soda. It is very frequent in the vale of Pewsey, and during thirty years I have never failed to cure it in all who have applied to me for my advice.

I formerly gave lozenges of burnt cork, burnt sponge, and pummice-stone, in equal parts, and always found this sufficient without any other medicine or application; but latterly, considering that it is the alkali of these lozenges which combines with the fat collected in the thyroide gland, and makes a soap, I have confined myself wholly to burnt sponge, which

which abounds with ſoda. This is made into lozenges, one of which, weighing half a dram, is put under the tongue every night.

℞ Spongiæ exuſtæ, ʒiij. Syr. ex Althæa, q. s. f. Trochiſci 60 horum unus h. s. lingua ſuppoſitus ibi per noctem lente deliqueſcat.

Genus CXXII. *Cancer.*

A hard tumour of a glandular part, painful and obſtinate, which terminates in the fouleſt ulcer.

What I have ſaid reſpecting ſcirrhus in the preceding genus is applicable to cancer, that deplorable diſeaſe to which all the glands of our machine are ſubject. The eyes, the noſe, the tongue, the palate, the cheeks, the lips, the groin, the axillæ, the uterus, and the breaſts of women, are the parts moſt frequently infected, and thoſe in which its ravages are moſt ſereve.

In women it commonly appears about the time when menſtruation ceaſes, and the firſt alarming ſymptom is perceived when they moye their arms backward ſo as to put the fibres of the pectoral muſcle on the ſtretch. On examination, they then diſcover a ſmall lump, perhaps not bigger than a hazel nut. On recollection they commonly remark, that two or three months prior to this period, they had

had a ſmall diſcharge of blood from the nipple, which ſtained their linen. This ſymptom proves that ſome alteration is taking place in the ſtructure of the breaſt. The tumour goes on enlarging, ſometimes rapidly, till the whole glandular ſubſtance becomes ſcirrhous. The ſuperficial veins then become conſpicuous, tortuoſe, enlarged, and very black.

When the tumour is much increaſed, one part of it appears ſofter than the reſt, and when ulcerated diſcharges a ſanious ichor, but no pus. Pain then becomes conſtant, the ulcer ſpreads, and a luxuriant fungus ariſes, which it is not eaſy to reſtrain.

The diſcharge, uſually copious, excoriates the ſkin, and produces excruciating pain, which gradually deſtroys the patient.

Before ulceration takes place in the external ſurface, the axillary glands are much enlarged, which ariſes probably from an abſorption of the cancerous virus, and the tumour, at firſt moveable, becomes fixed to the pectoral muſcle.

In the beginning of this diſeaſe the ſwelling may be retarded by the antiphlogiſtic regimen in its full extent, and by external applications. In this ſtate electricity with the exhibition of hemlock have done great things, particularly in Germany and Spain, where it is of a ſuperior quality, and mercurials, both internally and externally, may be ſafely tried. But in England the flores martiales *(ferrum ammoniacale)* have been the moſt ſucceſsful medicine. This preparation of iron may be given in any kind of

of mucilage, and not only alleviates pain, but diminiſhes the tumour. Mr. Cline, in his lectures, particularly mentioned the caſe of a lady in which the flores martiales conſtantly produced theſe effects after other medicines had been tried in vain. From his account of this lady there is much room to hope he will be able to perfect a cure.

The famous cancer powder of *Plunket*, exhibited by Martin of Pennſylvania, and given by both theſe quacks with no contemptible ſucceſs, has been detected to be arſenical. This medicine is perhaps the moſt active tonic in the materia medica, and deſerves to be fairly tried in all deſperate caſes, where a powerful tonic is required. A good preparation of it by Dr. Fowler has been already mentioned in my firſt volume, as uſed with great ſucceſs in intermittents.

When, notwithſtanding theſe endeavours to check the progreſs of the tumour, it continues to increaſe, there is at leaſt one ſource of hope remaining for a cure, which is by ſpeedy extirpation. But ſhould this be thought inexpedient, and ſhould the ulcer continue to extend its limits, even then pain and all offenſive ſmell may be prevented by the external application of carbonic acid air, in the manner firſt practiſed by Dr. Ewart, and deſcribed in his publication. When I was at Bath laſt winter he had a lady under his care, whom I viſited. As the ulcer was covered, I could form no idea of its condition or of its diſpoſition to heal; but ſhe was perfectly

perfectly freed from pain, and there was not the leaſt offenſive ſmell.

The application here deſcribed can never be injurious, nor is it attended with difficulty; for when the bladder is agglutinated to the breaſt, it may eaſily be filled with the carbonic acid air from another bladder, in which it has been collected. This ſupply may be derived from the ſurface of fermenting liquors by a ſyringe, and by the ſame inſtrument may be forced into the bladder, which ſerves as a reſervoir.

Genus CXXIII. *Bubo.*

A ſuppurating tumour of conglobate glands.

Buboes may be ſymptomatic of ſcrophula, of ſyphilis, or of the plague; and, as Sauvage judiciouſly obſerves, may be either ſcirrhous, phlegmonic, or œdematous. Of theſe varieties the phlegmonic are eaſily reſolved and quickly ſuppurate; the œdematous reſolve, but never ſuppurate; the ſcirrhous reſiſt reſolvents, yet never ſuppurate.

I. *Scrophulous buboes* call for tonics, preceded by gentle cathartics; in them the metallic *oxyds* are particularly uſeful.

II. *Peſtilential buboes* are critical, yet require to be

opened by the lancet, and to be aſſiſted by poultices to expedite their ſuppuration.

III. *Syphilitic buboes*, being frequently ill managed by ignorant practioners, demand a particular diſcuſſion.

Theſe tumours in the lymphatic glands of the groin, ariſing from impure connexion, are more or leſs painful according to the third degree of *inflammation*, which depends on the quantity and quality of the abſorbed virus with the irritability of the ſyſtem. The cure therefore might be attempted, as I have fully explained, when treating of the PHLEGMASIÆ, in my firſt volume, either 1. by reſolution; or 2. by ſuppuration; but the latter ſhould be carefully avoided. My reaſon for this opinion is, that when a ſyphilitic bubo ſuppurates, it becomes a kind of ſecretory organ, whoſe action is increaſed by the ſtimulus of oxygen in the atmoſpheric air, whilſt the ſecreted matter, which not only retains its ſpecific nature, but acquires virulence by contact with the air, being abſorbed in great abundance, produces general infection in the ſyſtem.

The cure therefore by reſolution ſhould be preferred to ſuppuration.

This may in moſt recent caſes be accompliſhed by venæſection, general or topical, by cathartics, and principally by friction with mercurial ointment, becauſe by this application the ſmall quantity of ſyphilitic

philitic virus contained in a bubo, although taken up by the abſorbents, carries with it the proper antidote, as it circulates throughout the ſyſtem.

Should however the bubo have acquired ſuch an extent of inflammation, as not to be reſolvable, the ſuppurative proceſs muſt be then promoted by cataplaſms and fomentations; and, when it arrives towards maturity, it muſt be opened either by the lancet or by cauſtics.

In this ſtate the ſubſequent abſorption muſt be carefully prevented by keeping the ulcer clean, and the ſyſtem muſt be guarded from general infection by mercurial ointments.

Genus CXXIV. *Sarcoma.*

A ſoft excreſcence reſembling fleſh, not painful.

These excreſcences ariſe from different parts of the body. From 1. The caranculæ lachrymales. 2. The eyelid, either externally, or internally. 3. The Sneiderian membrane. 4. The gums. 5. The ſcalp. 6. The back. 7. The uterus. 8. The vagina. 9. The cremaſter muſcle of the ſcrotum.

When it is derived from the Sneiderian membrane, it ariſes from a very narrow baſis, but grows larger as it proceeds either through the noſtrils or turns back into the throat. As this kind of

excreſcence, known by the name of *polypus*, has but few blood veſſels, it may be removed without hazard, either by ligature or by the forceps, accordingly as it is ſituated, either near the anterior opening of the noſtrils, or higher up. When this operation has been effectually performed, the *polypus* returns no more, and the hæmorrhage, which follows, may be ſtopped by thruſting lint up into the noſtrils.

When it affects the teſticle, it is known by the name of *ſarcocele*, and ariſes commonly from contuſion of that tender organ. In ſome caſes the injury extends no farther than the teſticle; but in others it creeps along the cremaſter muſcle, ſituated on the outſide of the tunica vaginalis, and ſtretches away, over the ſpermatic veſſels, to the inguinal ring. In the firſt caſe the extirpation may be performed with ſafety; but when ſarcoma reaches to the ring, little good can be expected from the operation, nor can it be prudently adviſed. This will be evident if we conſider, 1. That the excreſcence may have penetrated the inguinal ring itſelf, and have paſſed into the abdomen, where the knife cannot be uſed. 2. That to attempt a ligature of the ſpermatic blood veſſels ſo high up as the ring will be difficult and dangerous in the extreme, becauſe they retract, when cut; yet if this ligature were not ſecured the patient would be loſt.

When ſarcomatous excreſcences ariſe from other parts of the body acceſſible to ligatures, they may be extirpated with eaſe.

Genus CXXV. *Verruca.*

A wart.

A tumour hard, ſcabrous, and void of ſenſation.

WHATEVER produces inflammation at the root, or death in the wart itſelf, as happens by the application of a cauſtic, will excite action in the abſorbents to ſeparate not only between the living and the dead, but between the ſound parts and the diſeaſed. For it is a general law of the animal economy, that if a part is organically injured, the ſound part beneath relaxes, and ſhews diſtinctly the limits of the diſeaſe, ſo that a ſeparation begins to take place although the actual death or deſtruction of the part, as by a cauſtic for inſtance, has not reached ſo far. It is upon this principle, as John Hunter has obſerved, that arſenic, ſuperficially applied, removes tumours.

From what has been ſaid it will appear to be nearly a matter of indifference, as to the effect, what kind of cauſtic, actual or potential, is applied. Some remove their warts by the juice of celandine (*chelidonium majus*), ſome by ſpurge (*euphorbia helioſcopia*), others by juice of houſeleek (*ſempervivum tectorum*). Some prefer the actual cautery, others are better pleaſed with either burnt alum, with blue vitriol,

with vitriolic acid, or with the lunar cauſtic, and others again are ſatisfied with ligatures, when they can be applied.

The *verruca ſyphilitica* belongs to *ſyphilis*. After curing the primary diſeaſe, the tops of theſe warts may be cut off, and then a little powder of ſavine may be applied to them.

Genus CXXVI. *Clavus.*

A Corn.

A thickening of the cuticle, hard, lamellated.

The beſt inſtrument for cutting corns is a pair of ſciſſars, ſhort in the blades and ſharp in the points, becauſe by theſe there is no danger of going ſuddenly ſo far as to make them bleed, provided the perſon operates on his own corns.

A radical cure may be obtained by ſuffering them to grow freely without preſſure, and this effect may be obtained by ſticking plaſters, accumulated in proportion as the corn grows up, if each plaſter has a hole in the middle for the corn to penetrate. This however requires more attention than moſt people can command.

Genus CXXVII. *Lupia.*

A cyſt under the ſkin, ſoft, moveable, indolent.

THIS might have been conſidered as a ſpecies of ſcirrhus, becauſe the matter contained in the cyſt is ſteatomatous. When this matter is liquid and ſoft as honey, Sauvage calls the tumour *lupia meliceris*; when it reſembles ſuet, he gives it the name of *lupia ſteatoma.*

Extirpationby the knife is ſafe, eaſy, and effectual, prov ded no part of it is left behind.

Genus CXXVIII. *Ganglion.*

A hard tumour, moveable on the tendons.

GANGLIONS, upon the tendons, are incloſed in the ſame cellular membrane which forms their vagina, to facilitate their motion. They occupy their ſtation alſo on the annular ligaments and capſulæ mucoſæ, through which they paſs. Theſe tumours, although indolent, being yet very troubleſome by preſſing on the tendons, it becomes needful to remove them. This may in common be effected by

exciting the abſorbents, the beſt way of doing which is by preſſure, for this, when applied to a degree juſt beyond the point of eaſe, calls forth their activity to remove, when it is removeable, the preſſing ſubſtance, and that ſubſtance is the ganglion. I need ſcarcely add, that the preſſure muſt be uniform and long continued.

Another method of cure is, to give repeated and hard blows with a hammer, for this, by bruiſing, diſturbs the organic ſtructure of the part, and thereby, according to a beautiful law of the animal economy, excites the abſorbents into action for the purpoſe of conveying it away.

When the ganglion, by neglect, has been ſuffered to enlarge itſelf, it may be vain to attempt its reſolution in theſe ways. Nothing then remains but to remove it, either by the knife or by a cauſtic. The latter in ſkilful hands may have the preference; but, conſidering the irritability of tendons, with the danger attending any violence offered to them, and the greater hazard of deſtroying the coats of ſome artery, it muſt be evident, that much patience and the moſt watchful attention are required, when in ſuch a delicate ſituation we adviſe the application of a cauſtic.

My friend M. Gimbernat, being required to remove a large ganglion on the wriſt of the princeſs royal of Spain, which was cloſe to the radial artery, after having tried in vain what could be done by preſſure,

preſſure, had recourſe to cauſtics, which were ſo ſlowly and ſo cautiouſly applied as to require more than twelve months for perfecting a cure.

Genus CXXIX. *Hydatis.*

A cuticular veſicle filled with an aqueous fluid, reſembling that which ariſes from combuſtion, but not painful, unleſs when broken.

Although theſe cuticular veſicles are called hydatides, it is not meant by this appellation to imply, that they contain *tæniæ hydatigenæ*, which are found in caſes of encyſted dropſy, nor, as I apprehend, do they require medical aſſiſtance.

Genus CXXX. *Hydarthus.*

A white ſwelling on the joints, chiefly in the knees, ſmall at firſt, not diſcoloured, very painful, and deſtroying the mobility of the joint.

It is a diſeaſe of the lymphatics in the part affected; for either the exhalants are relaxed, or the abſorbents become atonic, in conſequence of which there

there is an accumulation in the ſinovial glands, which by *preſſure* cauſes irritation, and in the end ulceration of the parts.

The prediſponent cauſe ſeems to be laxity of the ſolids, and the occaſional cauſe commonly is ſome contuſion.

The indications of cure are to excite the action of the abſorbents and to brace the ſolids; the former by emetics and cathartics, but particularly by ſetons, by burning moxa on the part, and by repeated bliſters round the joint; the latter by tonics and aſtringents, particularly by bark and ſteel.

Let the ſtudent conſult further what has been ſaid on ſcrophula.

Genus CXXXI. *Exoſtoſis.*

A hard tumour on a bone.

THE bones are ſubject to the ſame diſeaſes as other parts of the animal machine, for they equally abound with nerves, arteries, veins, cellular membranes and lymphatics. The interſtitial parts of this contexture we ſee occupied by phoſphorated lime and gluten.

This appears by injections, when accurately made, for the calcareous earth may be carried off by marine acid diluted much with water, and the animal gluten

gluten may be washed away, after which the preparation being placed in oil of turpentine, the vascularity of the texture will be beautifully distinct.

Bones are not for any given period unalterably the same, but are incessantly wasting and renewed. Nay such is their renovating power, that in case of fracture they soon form a callus; and in cases of *necrosis*, whilst the absorbents carry off the dead portion, proper vessels go to work to surround it with new bone, which at the two extremities connects itself to the living portions of the old.

In this operation we admire the efforts of nature to relieve herself; but as in every thing beneath the sun, good and evil are intimately blended; and as it sometimes happens, that the laws provided for the health and well-being of the animal may give occasion to disease; so is it here, for this ossific faculty, to which we are indebted for health, strength, locomotive power, nay for the support of our animal existence, in certain circumstances, produces morbid ossifications and exostoses, which may either destroy us, if they are the cause of apoplexy, or render life a burthen, when they occasion either epileptic fits or palsy.

It is commonly active inflammation in a bone, which lays the foundation of the disease in question, and this may be occasioned either by topical violence or by constitutional affections.

The topical violence may be from either wounds

or

or contuſions, and the conſtitutional affection may be rachitis, ſyphilis, ſcorbutus, ſcrophula.

Hence Sauvage enumerates the ſubſequent ſpecies of exoſtoſis.

I. *Exoſtoſis benigna*, occaſioned merely by wounds, preſſure, or contuſions, and attended by the mildeſt ſymptoms, yet incurable, unleſs by extirpation.

II. *Exoſtoſis rachitica.* This ſpecies attacks rickety children, and ſuch adults as have been formerly ſubject to *rickets*. It is incurable; for amputation cannot remove the cauſe.

III. *Exoſtoſis cancroſa.* In this the tumour is brown, and the veins are varicoſe; but the moſt certain ſymptom is *cancer* in any other part.

IV. *Exoſtoſis ſcrophuloſa.* It is diſtinguiſhed by the common ſymptoms of *ſcrophula* in the glands, the upper-lip, and the eyes.

V. *Exoſtoſis ſcorbutica.* For the ſymptoms, the gums, the teeth, the ſkin, muſt be examined, and the treatment muſt be the ſame as in the primary diſeaſe.

VI. *Exoſtoſis ſyphilitica.* It is the conſequence of impure connexion, and the ſpecies may, from that circumſtance, be aſcertained, provided other ſymptoms of inveterate lues are not wanting. Theſe are ulcers, buboes, puſtules, nocturnal pains, &c.

This

This ſcourge of illicit intercourſe is moſt unfriendly to the bones. In them the ſyphilitic virus ſpreads, and in them its ravages are moſt ſevere. My friend Wathen has preſerved a ſkull, which is like a honey-comb; and in the cabinets of chirurgeons I have ſeen ribs, the ſternum, clavicles, and vertebræ, perforated in a thouſand places.

Yet deplorable as are the effects of this diſeaſe, its progreſs may be ſtopped by mercurial frictions long continued; after which, if there is external caries, it muſt be deſtroyed either by burning or by potential cauſtics: if there is *ſpina ventoſa*, or internal caries, an opening muſt be made by a trepan into the cavity of the bone and the ulcer muſt be cleanſed.

Sauvage mentions three other ſpecies; but as they require no ſpecial attention, I omit them.

Claſs IV. LOCALES.

Order VI. Ectopiæ.

Parts diſplaced.

In this order we have three genera.

1. *Hernia.* 2. *Prolapſus.* 3. *Luxatio.*

Genus

Genus CXXXII. *Hernia.*

A Rupture.

THE protruſion of a ſoft part, which yet remains covered by the common integuments.

SECTION I.

INTRODUCTION WITH ENUMERATION OF THE SPECIES.

IT is evident that hernia may be either active or paſſive; it may be produced either by violent exertions expelling the part; or it may happen from preternatural debility, relaxation, and diminiſhed power of retenſion. In the former caſe we have a ſtrong pulſe with pain, heat, and tenſion: in the latter the pulſe is weak, pain not ſevere, and heat is moderate. In one caſe it is difficult to reſtore the part; but when reſtored, it is retained: in the other to reſtore is eaſy, but not ſo to make the part continue in its place.

When hernia is the effect of violence, lubricants, laxatives, anodynes, and venæſection are required: but when it is the conſequence of relaxation and debility, the tonic plan muſt be adopted, with air,

exercise, a generous diet, aromatics, bitters, bark, and steel.

Sauvage, under this genus, has introduced the subsequent species arranged by the learned and most laborious D. Cusson of Montpellier. 1. Enterocele. 2. Epiplocele. 3. Gastrocele. 4. Hepatocele. 5. Splenocele. 6. Hysterocele. 7. Cystocele. 8. Encephalocele.

SECTION II.

OF ENTEROCELE.

ENTEROCELE is an hernia of the intestines. Sauvage, who has made this one of his genera, arranges under it no less than five and twenty species: but as these lead to distinctions which are foreign to my purpose, I shall here omit them. It is sufficient to observe, that the intestine may pass either through the inguinal rings, the crural arches, the oval foramina, the ischiatic semilunes, the umbilical ring, or after wounds through the muscles of the abdomen, according to which circumstances the hernia is called, a. *Inguinalis.* b. *Cruralis* or *femoralis.* c. *Ovalaris.* d. *Ischiatica.* e. *Umbilicalis.* f. *Ventralis*; or, from the place to which the *hernia inguinalis* descends, it is denominated *scrotalis* and *vaginalis.*

It may likewise be observed, that hernia appears in three conditions; either A, simple and incysted, which

which is, when the inteſtine alone is protruded with a portion of the peritonæum. B, compound and incyſted, when the omentum is protruded with the inteſtine, but the peritonæum is not ruptured. C, not incyſted when the peritonæum itſelf is ruptured. And in addition to theſe diſtinctions, it muſt be yet remarked, that the hernia may be *ſtrangulated* or not, as I ſhall immediately have occaſion to explain.

Of the above mentioned varieties of hernia, the *inguinalis* and the *femoralis* are the moſt important, as being moſt common and requiring moſt knowledge and attention.

In the *hernia inguinalis* the inteſtine paſſes through the ſame ring with the ſpermatic veſſels; and in the *hernia femoralis* it eſcapes under the crural arch with the crural artery and vein. The circumſtance which renders theſe two ſpecies peculiarly hazardous is, that they are more ſubject than the other ſpecies to be ſtrangulated, which not only prevents reduction, but ſtops the periſtaltic motion of the inteſtine, impedes circulation through the arteries, and, producing gangrene, very ſpeedily deſtroys the patient.

Strangulation may be cauſed either by ſpaſmodic ſtricture of the aperture, through which the inteſtine paſſed, or by inflammation and diſtention of the parts protruded.

The cure therefore muſt be attempted by ſpeedy and copious venæſection, by fomentations, and by manual operation.

The

The method of *reduction* practiſed by my valuable friend M. Gimbernat, of Madrid, is ſo ingenious, and at the ſame time ſo ſucceſsful, that I ſhall give it in detail. He places the patient on his ſide oppoſite the hernia, with his body a little bent and lower than the pelvis, in order to relax the muſcles of the abdomen. With the ſame intention the head is brought forwards towards the cheſt, and in the *hernia femoralis* he elevates the thigh, on which the hernia is, yet ſo as not in the leaſt to obſtruct the operation. Sitting then by the bedſide, with his hand which is neareſt to the patient, he graſps the tumour at its baſe, which is the upper part, and with his three firſt fingers he compreſſes it all round to diminiſh its diameter, at the ſame time with the fingers of the other hand he puſhes the apex, which is the lower end of the tumour, upwards and inwards, to direct it towards the crural arch, becauſe it cannot be reduced in any other direction. He has ſometimes found that more than one hour was required for this operation. When the patient is fatigued he ceaſes both to preſs and puſh, but yet never quits his hold, and when he renews theſe efforts he increaſes gradually their force.

Of numerous hernias, treated by him in this way, and many of them deſperate, thoſe, which have not been reduced, have been very few.

It may be needleſs to add, that this method is improper if the tumour is inflamed and very painful, for in ſuch circumſtances there is no ſafety for

the patient unleſs in the cruent operation, that is in the dilatation by the knife, of the part which cauſes the ſtrangulation.

This operation in the *inguinal* and *umbilical hernias* is ſafe and eaſy, but, by the uſual methods, in the femoral hernia, it has been found both difficult and dangerous in the extreme. Yet in the way firſt practiſed by M. Gimbernat, the reduction of hernia femoralis may be rendered the moſt ſimple and moſt ſafe of any cruent operation practiſed in caſes of ſtrangulated hernia, for neither the epigaſtric arteries nor the ſpermatic veſſels can be injured by his biſtoury.

For the *cruent operation*, in *femoral hernia*, after the ſac has been properly laid open, the patient muſt be placed upon his bed, as for the reduction, and, if the inteſtine is ſound, the operator muſt endeavour to reduce it. For this purpoſe a little more of the inteſtine muſt be drawn out of the abdomen, becauſe ſometimes the ſtrangulated part is affected by ſuch ſtrong ſpaſmodic conſtriction, as not to allow a paſſage to the fæces contained in the protruded portion of the inteſtine. This frequently is the only impediment to reduction, and is commonly overcome if there is no adheſion, by bringing to the arch a part of the inteſtine, which, not having ſuffered ſtrangulation, will not be conſtricted like that which has laboured under it without remiſſion for hours or for days.

If, as rarely happens, the reduction cannot be obtained

tained in the way above deſcribed, it will be needful to divide the part which cauſes the ſtrangulation. But, previous to this operation, the patient muſt evacuate his urine, that his bladder may be free from danger of being wounded by the biſtoury.

When therefore the patient is ſtretched upon his bed, ſo as to preſent the part moſt commodiouſly for the operator, a director, or grooved probe, with a channel of ſufficient depth and a blunt point, muſt be introduced along the internal ſide of the inteſtine, that is between the inteſtine and the pubis. This muſt be directed obliquely inwards, till it has paſſed the crural arch, the entrance to which will be perceived by increaſed reſiſtance, and its having paſſed will be aſcertained when the point of the director reſts upon the pubis. Then, with his left hand, if the hernia is on the right ſide, or with his right hand, if it is on the left, the operator keeping the point of his director firmly reſting upon the branch of the os pubis, in ſuch a poſition that the back of the director ſhall be turned to the inteſtine, and its grove towards the ſymphyſis pubis, when conſequently the two edges will be turned one of them downwards, the other towards the crural arch, he muſt with the other hand introduce into the groove of the director a biſtoury, with a narrow blade and blunt point, till it enters the arch, which will be known, as before ſtated, by a little increaſe of reſiſtance. The biſtoury muſt then be very cautiouſly preſſed forward to the end of the

groove, and, employing both hands in concert, the operator muſt conduct both inſtruments together cloſe along the branch of the pubis towards its ſymphyſis, ſo as at the ſame time to draw them out.

By this eaſy operation the duplicature or expanded aponeuroſis of the abdominal muſcles, which is turned inwards and upwards more than an inch, and which forms the crural arch, is divided from its internal border, to the depth of about ſeven lines, and within four or five lines of its angle, at its inſertion along the creſt of the pubis. The remainder of this duplicature is left attached to the inferior pillar, of which it is the continuation.

This ſimple inciſion being thus accompliſhed without the ſmalleſt danger, the internal border of the crural arch, which alone forms the ſtrangulation, is conſiderably relaxed, and the parts are reduced with the greateſt facility.

Pregnant women muſt be much inclined to the ſide oppoſite from the hernia, that the uterus may not be injured.

After the operation, the lips of the inciſion muſt be brought together and ſecured by dry ſtitches, over theſe a ſimple compreſs with unguentum ceræ muſt extend two inches beyond the ſuture to prevent the introduction or even the acceſs of air. On this, dry lint and other compreſſes muſt be ſupported by convenient bandage, and the patient muſt keep his bed, with the thigh elevated and the body incurvated, ſo as to relax the abdominal muſcles and prevent

prevent ſtrong preſſure of the inteſtines againſt a weakened part. In five or ſix days the dreſſing may be changed, and when the patient riſes from his bed he muſt wear for a great length of time the *ſpica bandage*. Temperance with quietneſs muſt be recommended, and coſtiveneſs muſt be avoided.

When this ſalutary operation has been neglected, all the diſtreſſing ſymptoms become aggravated; pain, ſickneſs, nauſea, and vomiting, the fruitleſs efforts of nature to relieve herſelf, enſue; and as theſe prove vain, ſhe withdraws her vital energy from the ſtrangulated portion of the inteſtine, now rendered not only uſeleſs but worſe than uſeleſs, leaves that part to mortify, and then excites the needful action of the abſorbents to make a ſeparation between the living and the dead. Nor do her efforts terminate in this ſeparation, for unleſs death prevents, which is moſt frequently and ſpeedily the caſe, the adheſive inflammation may take place between the external teguments, and the ſuperior portion of the inteſtine, ſo as to form a new anus, or the two living portions may unite and remedy the evil.

Van Swieten records three curious caſes, in the firſt of which, after the hernia had continued eight years, it mortified and caſt off a portion of the inteſtine in length about eight fingers, yet in leſs than five weeks the economy of nature was perfectly and ſpontaneouſly reſtored.

In the ſecond caſe, when the length of ſix fingers had periſhed by gangrene, the ſurgeon paſſed a

thread through the meſentery, and retained both the living ends of the inteſtine in the aperture of the wound, with a view of making this ſerve the purpoſe of the anus: and in a month theſe living parts were perfectly united.

The third was ſtill more remarkable, for in this the duke of Brunſwick's ſurgeon cut off a conſiderable portion of the inteſtine, after which putting the ſuperior extremity into the inferior, he ſlightly faſtened them together by a ſuture, and replaced them. This patient lived afterwards in perfect health, till at the diſtance of twelve months ſhe had a pleuriſy, and died. After death the parts were found united, and were preſerved in the cabinet of Heiſter.

Queralto, firſt ſurgeon to the Spaniſh army, is reported to have performed this operation with ſucceſs, by introducing, as above ſtated, the ſuperior extremity into the inferior after he had ſeparated the part deſtroyed by gangrene.

SECTION III.

OF EPIPLOCELE.

EPIPLOCELE is an hernia of the omentum, either ſimple, compound, ſaccated, or not ſaccated. It is moſt common in the umbelical ring, but it may be ſeated in the other parts, which are ſubject to interocele. It is attended by much pain, more

eſpecially when the patient attempts to walk erect, but it is not affected by efforts to evacuate the fæces.

It may ſafely be extirpated by ligature.

SECTION IV.

OF GASTROCELE.

GASTROCELE is an hernia of the ſtomach, cauſed by violent efforts in vomiting or lifting weights, more eſpecially after the muſcles of the abdomen have been wounded.

It is ſpecifically diſtinguiſhed by pain in the ſtomach after eating, by loſs of appetite and vomiting, but more eſpecially by eaſe in an horizontal poſition.

The cure is to be effected by reduction, by wearing a truſs, by relaxing the muſcles of the abdomen, by ſtrict temperance, and by tonics.

SECTION V.

OF HEPATOCELE AND SPLENOCELE.

HEPATOCELE is an hernia of the liver.

The caſes adduced were in new-born infants and in the umbelical ring. Theſe ſeem to have been from natural defect in the organization, for the liver is not a floating viſcus.

Splenocele is an hernia of the ſpleen.

Two caſes are adduced by Ruyſch and Hildanus. In both the ſpleen was much enlarged and ſcirrhous.

SECTION VI.

OF HYSTEROCELE.

Hysterocele is an hernia of the womb.

It has been occaſioned by violent muſcular efforts, by blows on the abdomen at the time of geſtation, if preceded by either wounds or abſceſs, becauſe theſe in the abdomen do not cicatrize ſo well as in parts that are at reſt. Ruyſch relates the caſe of a woman, who becoming pregnant after an ulcer had been healed in the lower part of the abdomen, the tumid uterus deſcended into a dilated ſac of the peritonæum in that weakened part, till it hung with the included fœtus at her knees. Yet when her full time was come, the midwife reduced this wonderful hernia, and in a natural way ſhe was ſafely delivered of a ſon.

SECTION VII.

OF CYSTOCELE.

Cystocele is an hernia of the urinary bladder.

It may paſs either by the foramen ovale, the inguinal rings, or the crural arch. It is always affected by

by the preſence or abſence of urine in the bladder, and may be therefore readily diſtinguiſhed from other ſpecies. When inflamed, it is attended by acute pain, heat, fever, vomiting, and hiccough. In this caſe the antiphlogiſtic plan muſt be purſued to prevent a gangrene.

The reduction muſt be attempted in the ſame way as in *hernia inteſtinalis*. After which, if it has been reduced by taxis, a proper truſs muſt be applied, but if by the *cruent operation*, then the ſpica bandage muſt have the preference.

SECTION VIII.

OF ENCEPHALOCELE.

ENCEPHALOCELE is an hernia of the brain.

This has been frequently ſeen in new-born infants, ariſing from defect of oſſification in the cranium, and in adults after part of it has been removed by fracture, by caries, or by the trepan. In ſuch caſes a portion of the brain has been protruded by the natural diſtention communicated to it at every inſpiration. To prevent this, and to ſecure the brain from ſuch preſſure, as would produce deep ſleep, apoplexy, death, the apertures are uſually covered by metallic lamina chiefly of lead, adapted to their ſhape and ſize, with ſhoulders to keep them from falling through the cranium.

Genus

Genus CXXXIII. Prolapsus.

The protruſion of a ſoft part uncovered.

Dr. Cusson, and after him Sauvage, conſiders this as a ſuperior order to be diſtinguiſhed into genera and ſpecies; but we ſhall be contented with noticing theſe as ſo many ſpecies and varieties.

I. *Exophthalmia* is a prolapſus or protruſion of the eye, which according to theſe noſologiſts may be,

a. *Exophthalmia hydropica.* The bulb of the eye increaſes gradually, and the ſight is gradually impaired. The cornea is elevated and the iris ſeems to be ſunk. The pupil becomes almoſt immovable, pain is felt at the bottom of the eye, and there is involuntary flux of tears. It is in truth only a *dropſy* of the eye, known by the name of *hydrophthalmia*, and belongs to *caligo*.

It is cured as *dropſy*, and if need be, the paracenteſis muſt be reſorted to.

b. *Exophthalmia purulenta.* This follows in conſequence of violent inflammation, external and internal, produced by the irritation and diſtention in exophthalmia hydropica.

dropica. This accumulation of pus in the chamber of the eye is called *hypopyon*, and requires the lancet. It belongs properly to *caligo*.

c. *Exophthalmia cancroſa.* It is attended with intenſity of pain and total deſtruction of organic ſtructure. No relief is to be expected but in extirpation.

d. *Exophthalmia traumatica.* To be treated as a wound.

e. *Exophthalmia a protuberantia.* This properly ſpeaking is the only exophthalmia, and the protuberance may be *exoſtoſis*, for which ſee genus 131; *ſcirrhus*, for which conſult genus 121; *hydatides*, or other encyſted tumour, as in *dropſy*, or it may be merely fat; but the moſt common protuberance is *polypus*, which may ſometimes be extracted, if not too deeply ſeated, and the eye may be replaced, as was performed by my friend M. Gimbernat, in a caſe which his ſon communicated to me.

The ſubſequent letter from one of the firſt oculiſts in our metropolis, contains a moſt intereſting caſe of *exophthalmia*.

Captain P———, of America, on his arrival in England, applied to me with a complaint of his left eye. On examination I found a complete paralyſis of the upper eyelid, and

and an increaſed prominence in the eye itſelf: on further inveſtigation I found the prominence of the eye did not proceed from any enlargement of the globe itſelf, but from ſome ſubſtance occupying the poſterior part of the orbit. This ſubſtance or tumour alſo ſeemed not to be confined to the orbit only, but to extend itſelf into the cavity of the cranium, ſo as to occaſion an increaſed projection of the prominence of the os frontis on that ſide. Theſe circumſtances were accompanied with a conſtant dull heavy pain in the head, which ſometimes increaſed to a great degree of violence, and with a ſenſation round the eyebrow and temple, which he deſcribed as ſimilar to that which he experienced when the foot is ſaid to be aſleep. He was much emaciated, and a vaſt degree of debility was induced on the general ſyſtem.

The firſt means employed were a large bliſter on the head, the internal exhibition of the hydrarg. muriat. and bark, and the external application of electricity and camphorated ſpirits of wine to the eyelids, and of a drop of the tinctura thebaica to the eye itſelf when any pain was experienced in the globe. This plan, with the renewal of the bliſter as frequently as poſſible, was continued about two months, during which time, though the pain was conſiderably abated, the diſeaſe ſeemed to gain ground. The tumour in the forehead was larger, and the eye more prominent.

A mercurial courſe was now adopted, and he rubbed in the ointment for about three weeks, when a violent mercurial inflammation of the eye itſelf took place, attended with a conſiderable opacity of the cornea. The bark with the hydr. muriat. was now given, and the rubbing in was entirely omitted. The eye, with proper local treatment, began ſoon to amend and entirely recovered. The paralyſis diſappeared, but the tumours continued much the ſame.

The

The pain in the head returned ſometimes, but in a leſs degree, and was always removed by the bliſter. About this period the whole plan was interrupted by his taking cold, and being ſeized with an inflammation of the bowels, which for ſome days gave us ſmall hopes of his recovery. When his ſtrength allowed an examination I was ſurpriſed to find the prominence both of the forehead and eye much diminiſhed. The general debility was ſo much increaſed as to derange his faculties at times. The bark was again given, but it always purged, and would never agree. Having ſeen the good effect of *fixed air* in ſome debilitated conſtitutions, I recommended his drinking freely of ſpruce beer. This agreed moſt completely, and the change in his general health, even in the ſpace of a week, was ſo great as to afford the moſt ſanguine hopes of his re-eſtabliſhment.

Another inflammation now attacked the eye itſelf, attended with an ulcer of the cornea. For this a variety of local remedies were uſed, and the hydrar. muriat. again. The tumours continued gradually decreaſing, the eye perfectly recovered; and by continuing theſe means for about two months, he quitted England not only perfectly freed from his diſeaſe, but increaſed in bulk and in better health than he had been for years. He has been ſince to America, and has returned to England; is in perfect health, and has never experienced the ſlighteſt relapſe whatever.

JOHN WATHEN PHIPPS.

N. B. He continues drinking the ſpruce beer to this day.

Pall-Mall, Dec. 22, 1795.

II. *Blepharoptoſis*, is either retraction, inverſion, or

or elongation of the eyelids, in all which caſes the ſkilful ſurgeon can give relief.

In all diſeaſes of the eye the young practitioner may conſult the works of Maitre-jan. S. Yoes, Boerhaave, Heiſter, Bell, and Wathen; and ſhould any operation be required, to which he feels himſelf unequal, he cannot do better than to conſult the latter, or his grandſon, Wathen Phipps, in London, who have devoted their attention wholly to this ſubject, and are certainly the firſt practitioners in Europe.

III. *Hypoſtaphyle*, falling of the uvula.

This may be attended by *inflammation*, and require the antiphlogiſtic regimen, with cooling and detergent gargles; or it may be cauſed by relaxation, and call for tonics.

In the firſt caſe for a gargle,

℞ Aq. Hord. ℥vij. Mel. Roſac. ℥j. Sal. Ammon. Crud. ʒj. M. pro gargariſmo.

That is,

Barley water ſeven ounces; honey of roſes an ounce; crude ſal ammonia a dram. Mix for a gargle.

For an aſtringent gargle, nothing can excel the decoction of oak bark, with honey of roſes and a ſmall quantity of alum.

℞ Cort. Quercin. un 1. Aq. Font. ℔iſs, fiat Decoctio ad ℔j. Cui adde Mel. Roſac. un. 1. Alum. dr. 1. M. pro gargariſmo.

IV. *Paragloſſe.*

IV. *Paragloſſe.* Under this ſpecies we obſerve four varieties.

a. *Paragloſſe deglutatoria,* in which the frenum linguæ being either wanting or deſtroyed, new-born infants ſwallow the tongue.

b. *Paragloſſe gloſſomegiſtus,* from extreme enlargement of the tongue, of which the cauſe may be ſought among thoſe that occaſion, 1. Pyrexiæ; 2. Neuroſes; 3. Cachexiæ; for it may either be inflammation, or the conſequence of ſpaſmodic affections, or it may ariſe from ſome derangement in the lymphatic ſyſtem. Enlargement of the tongue from *inflammation* is not uncommon, but from *ſpaſmodic affection* is ſeldom to be met with. One caſe I ſaw in a lady of a certain age, who was of a relaxed and irritable habit, which returned regularly about the monthly period, after the monthly evacuation ceaſed. It ſeemed to ariſe from the ſtimulus of the hæmorrhagic effort in the veſſels of the uterus, with which the tongue was affected by conſent of parts. It was at laſt relieved by tonics and aſtringents.

Enlargement of the tongue from derangement of the lymphatic ſyſtem is too frequently obſerved when mercurial ſalivation is carried to exceſs.

c. *Para-*

c. *Paragloſſe exertoria*, is cauſed either by *paralytic* affection of the retrahent muſcles of the tongue, or by *ſpaſmodic action* of thoſe muſcles by which it is protruded.

d. *Paragloſſe retractoria* is the inverſe of the former, being a violent retraction of the tongue, either by paralytic affection of the protruding muſcles or ſpaſmodic action of the retrahent.

V. *Proptoma. Relaxation* of the ſcrotum, of the under-lip, of breaſts in females, of the præpuce, or of the ears.

VI. *Exania.* The falling down of the rectum may be occaſioned by ſtraining either in childbirth or in efforts to evacuate hardened fæces; by the long continuance of *diarrhœa* and *dyſentery*, by the operation of violent cathartics, and by either paralyſis or diviſion of the levatores ani. Theſe cauſes give names to as many ſpecies in Sauvage; but, independently of theſe diſtinctions relative to the cauſes which occaſion this diſeaſe, the prolapſus may be either ſimply inflamed, it may be ſtrangulated, or it may be gangrened.

The indications of cure muſt have reſpect both to the condition of the prolapſus and its cauſe. The part prolapſed muſt be reduced by hand; inflammation muſt be checked by venæſection, or by leeches; by tepid fomentations, and by antiphlogiſtics;

gistics; and whatever is the occasional cause must be obviated.

VII. *Hysteroptosis. Prolapsus uteri.* Falling down of the womb. This may be occasioned by hard labour, or by ill management in labour, when the ignorant midwife extracts the placenta before the uterus is properly contracted. The surgeon in replacing this viscus must be cautious not to injure it, and should the part be much inflamed topical bleedings, with the gradual application of cold by means of linen cloths soaked in water and frequently renewed, must be first recommended.

When the womb has been reduced, it may be kept in its place by a pessary, and tonics with astringents must be both internally exhibited and topically applied to brace its ligaments. The same may be said of prolapsus vaginæ, which is merely a consequence of relaxation in the cellular substance, by which it is attached to the surrounding parts.

Genus CXXXIV. Luxatio.

A dislocation or disjointing of a bone.

This may be discovered by inability to move the joint, when this inability arises neither from

fear of pain nor from any known diſeaſe, by a change in the external form and poſition of the part; by variable and interrupted pain depending on efforts to move, and by tenſion of the muſcles oppoſed to the luxation.

A diſlocation, when not accompanied by rupture of the capſular ligament, can be reduced by manual operation. Strong contraction of the muſcles is the only obſtacle to the reſtoration of the joint, and this ſometimes is ſo great as to reſiſt all the mechanical powers which can be applied.

M. Gineſta, profeſſor of the college of ſurgery at Madrid, has however happily diſcovered, that opium internally taken and externally applied in ſtrong fomentations to the contracted muſcles, induces ſuch a degree of relaxation, as greatly facilitates reduction. In a memoir preſented to the infant college, and which will be publiſhed, he mentions ſeveral caſes of long ſtanding, reſtored in this way by him, after having wearied the patience and fruſtrated the hopes of other practitioners.

When the head of the diſlocated bone has ruptured the capſular ligament, and paſſed through the opening, the reduction is attended with much greater difficulty, becauſe it is ſcarcely poſſible to make the projected bone return by the ſame channel. This ſituation of things being diſcerned by the more limited and impeded motion of the diſlocated bone, the ſkilful ſurgeon muſt lay open the parts concerned, and dilate the perforation of the

capſular

capſular ligament, that he may be enabled to reduce the joint. In this operation the difficulty and danger will ariſe from the high inflammation of theſe parts, when expoſed to the acceſs of atmoſpheric air. M. Gineſta has deviſed a new method of performing this operation, which I may perhaps hereafter have an opportunity of communicating to the Engliſh ſtudent.

When, notwithſtanding all the efforts of art, the diſlocation cannot be reduced, nature exerts her efforts to relieve herſelf, and ſometimes in the ſcapula and the ileum forms a new cavity, in which the head of the diſlocated bone finds a reſting place and firm ſupport. For here, by a law of the animal economy, *preſſure* ſets the abſorbents to work to remove the part ſubjected to its action; inflammation follows with a diſcharge of oſſific matter, and a new articulation is produced. This with perfect reſt would form an *anchyloſis*, but with proper motion the articulation gains its capſular ligament, and becomes a perfect joint.

Whilſt nature is thus forming a new cavity, in which the head of the diſlocated bone may move ſecurely, ſhe proceeds to obliterate the former cavity as no longer uſeful.

Several joints thus formed by nature, have been diſſected and preſerved in ſpirits by my friend M. Gimbernat, and are now in the muſeum of the royal college at Madrid.

Claſs IV. LOCALES.

Order VIII. DIALYSES.

Solutions of Continuity.

In this order we have ſeven genera. 1. Vulnus. 2. Ulcus. 3. Herpes. 4. Tinea. 5. Pſora. 6. Fractura. 7. Caries.

Genus CXXXV. VULNUS.

A wound.

COULD the divided ſurfaces of a wound be brought into contact without effuſion of blood, the mouths of the correſponding veſſels would immediately unite by *inoſculation*. But even extravaſated blood, if the lips of the wound are brought together, is ſo far from being an impediment, that it becomes a bond of union; for the ſuperfluous blood and the red particles of the remaining blood being ſpeedily abſorbed, the coagulating lymph becomes vaſcular, ſo as to contain within itſelf nerves, arteries, veins, lymphatics, which form a junction with the divided veſſels, and renew their communication. In this caſe the parts are ſaid to *unite by the firſt intention*.

Should

Should however this opportunity be loſt, and the mouths of the divided veſſels be ſuffered to contract, they will throw out now no longer blood, but coagulating lymph, and the parts, being brought into contact, may yet unite by the *adheſive inflammation*, which is the *ſecond mode of union*.

Divided parts may be brought into contact in all caſes, excepting the orbicular muſcles, ſuch as the lips, either by bandage, or by dry ſuture, that is, by narrow ſtrips of ſticking plaſter, which may be placed about a quarter of an inch apart. This will be fully ſufficient to effect the union, and, without any other application, will heal the wound by what has been called the firſt intention: but in fact this includes two operations of nature which are perfectly diſtinct.

Should a *ſcab*, for want of perfect union in this way, be formed, it ſhould be ſuffered to remain, and ſhould be covered with *egg-ſkin*, more eſpecially when near a bone, as for inſtance on the ſkin; for this will expedite the union of divided parts, and at worſt theſe can but ſuppurate at laſt, as they will inevitably do if the ſcab is unſeaſonably removed. Even in ſome compound fractures this practice is recommended by John Hunter, who judiciouſly obſerves, that by permitting the blood to *ſcab* upon the wound, the blood underneath will become vaſcular, and the union will be complete, although the parts are not in contact. Even when inflammation is increaſed by the irritation of the *ſcab*, and

when pus eſcapes from under its edges, this may be ſqueezed out, but the *ſcab* muſt not be haſtily diſturbed. Should inflammation be thus increaſed to a conſiderable degree, a poultice will relieve it, and quietly bring away the ſcab.

When theſe operations have been neglected, or where ſolution of continuity is attended by loſs of ſubſtance; as in laceration and contuſions; *ſuppurative inflammation* will next take place, and *granulations* will be formed, which is the *third mode of union.*

This more eſpecially will be the proceſs when extraneous bodies, as in *gun ſhot wounds*, have found a lodgment. In theſe caſes the wound muſt not be opened neither lightly nor wantonly, nor under the idea of hunting for the extraneous ſubſtance; for the parts themſelves will bring theſe to the ſurface, and ſuch as cannot be thus extracted give little trouble, nor do they prevent the healing of a wound. It is particularly vain to hunt for *balls* becauſe they take a wayward courſe, and often find a lodgment where the ſurgeon would be leaſt inclined to look for them. Even if the ball can be felt, and yet the ſkin is ſound, it will not be prudent to extract it before the original wound is healed, becauſe where it reſts it can do no harm, and it is better to have only one wound at a time than two.

When a ball has wounded a cavity, as for example, the abdomen; if it has paſſed with little velocity, the parts will in ſome meaſure heal by the firſt intention. If it has paſſed with ſuch velocity

as

as to produce a ſlough, the *adheſive inflammation* will take place on the peritonæum all round the wound, which will exclude the general cavity from taking part in the inflammation, although the ball ſhall have not only penetrated, but wounded the epiploon, the meſentery, or other part not immediately eſſential to life, in its paſſage through the body, for whatever ſolid viſcus has been pierced, the ſurfaces in contact, ſurrounding every orifice, will unite by the adheſive inflammation, ſo as to form one continued canal, with which the general cavity has no communication. If any extraneous body has been carried in by the ball, it will be included in theſe adheſions, and with the ſlough will be conducted by one of the orifices to the external ſurface.

If the ball has wounded the liver or the ſpleen, theſe may ſoon acquire the healing diſpoſition; if the ſtomach, inteſtines, kidneys, ureters, or bladder, ſuch injuries are generally mortal, for their contents eſcape into the cavity of the abdomen, and univerſal inflammation of the peritonæum takes place, attended by pain and tenſion, which terminate in death. But if the wound is ſmall and the bowels are not full, adheſions may take place all round the wound, which will confine the matter, and make it go on in its right channel.

When a ball has not penetrated any of the viſcera of the abdomen, but only by contuſion produced death in a part; whenever the ſlough comes away, the matters contained in that viſcus will eſ-

cape, but as the *adheſive inflammation* takes place between the ſurfaces in contact, the new channel will be preſerved intire, and cut off the communication between the external air and the cavity of the abdomen. This channel may however in time be cloſed, and the contents may paſs by their accuſtomed courſe.

A young gentleman was ſhot through the body. The balls, three in number, entered on the left ſide of the navel, and came out behind juſt above the ſuperior vertebræ of the loins. The firſt water he made was bloody. In leſs than a fortnight John Hunter pronounced him out of danger, being perſuaded, that whatever cavities the balls had entered, were united by the adheſive inflammation, ſo as to form one complete canal, and that neither the extraneous matters, carried in with the balls, nor any ſlough, which might ſeparate from the ſides of this canal, nor matter formed in it, could get into the cavity of the abdomen, but muſt be conducted to the external ſurface of the body, either through the wounds or from an abſceſs forming for itſelf, which would work its own exit ſomewhere. Soon after this concluſion, ſome fæces coming through the wound confirmed him in his opinion reſpecting the operations of nature to ſecure the cavity of the abdomen: yet he feared this wound might in future perform the functions of the anus. He ſaw clearly that an inteſtine had received a bruiſe ſufficient to kill the part, and that till the ſeparation

of

of the ſlough had taken place, both the inteſtine and canal were ſtill complete, and therefore did not communicate with each other; but that when the ſlough was thrown off, the two were laid into one at this part, and that therefore the contents of the inteſtine got into this wound. This ſymptom however gradually decreaſed by the contraction of this opening, till an entire ſtop to the paſſage of the fæces by it took place and the wounds were healed.

John Hunter has ſeen ſeveral caſes in which patients have recovered after being ſhot through the lungs, as happened to general Monkton at Quebec; and this he attributes to the inconſiderable hæmorrhage cauſed by the paſſage of a ball, and therefore to the ſmall quantity of extravaſated blood, either in the cavity of the thorax, or the cells of the lungs. He attributes it likewiſe to the indiſpoſition of gun-ſhot wounds to heal externally by the firſt intention, on account of the ſlough, ſo that extravaſated matters have time to eſcape.

It is curious to obſerve, that the cavity of the thorax does not ſo readily fall into the ſuppurative inflammation from a gun-ſhot wound, as other cavities. This circumſtance is the more favourable, becauſe as the lungs collapſe, when either wounded themſelves, or when a wound is made into the cheſt, and is not ſuffered to heal by the firſt intention, therefore adheſion cannot readily take place.

In caſe of ſtabs, more eſpecially by ſharp inſtruments, if only a ſmall quantity of blood is extravaſated

ſated into the cavity of the cheſt, the abſorbents will take it up. If the quantity is great, it will produce dyſpnœa, and terminate in ſuffocation.

Genus CXXXVI. Ulcus.

An ulcer diſcharging pus or ichor.

SECTION I.

OF INFLAMMATION AND ITS SEVERAL SPECIES.

To underſtand the diſtinctions needful to be made in ulcers, the ſtudent muſt comprehend thoſe which have been commonly adopted reſpecting inflammations.

Inflammation may be regarded as one of nature's efforts to relieve herſelf in caſes of external violence or of internal diſeaſe.

I have already conſidered inflammation as being either active or paſſive, phlegmonic or eryſipelatous.

In *phlegmonic*, or, as John Hunter calls it, *adheſive inflammation*, we obſerve, 1. The action of the veſſels much increaſed, as appears by ſtrong pulſation of the arteries in and near to the part affected. 2. The veſſels much diſtended and red globules paſſing into the exhalent arteries, where only the ſerum and coagulating lymph ſhould go. 3. Conſiderable increaſe of ſize in the part inflamed proceeding

ceeding from extravaſation of coagulating lymph and ſerum into the cellular membrane. 4. New veſſels formed in this coagulating lymph. 5. Bright redneſs in the part. 6. Much pain. 7. Conſiderable increaſe of heat. 8. When blood is taken from a vein, it has a thick buff cruſt, conſiderably cupped, which ſhews ſtrong powers of coagulation.

All theſe appearances demonſtrate that the ſyſtem is highly OXYGENATED, and that the vital energy is great. In this ſpecies of inflammation the efforts of nature in all her operations are ſtrong, well ſupported, and, unleſs exceſſive, are commonly effectual. Theſe operations are, 1. Ready union by the firſt intention. 2. Reſolution. 3. Suppuration, conſtantly ſurrounded by adheſions to prevent diffuſion of pus through the cellular membrane into contiguous parts. 4. Granulation. 5. Cicatrization. And throughout the whole of theſe the conſtitution is not readily drawn into conſent. It attacks the robuſt, and that moſt frequently in winter.

In *eryſipelatous inflammation* every thing above mentioned is reverſed, becauſe, as John Hunter well remarks, the blood of weakly people is weak in its living principle. It is of a darker red, looſe in its texture, feeble in its powers of coagulation, and therefore appears to be deficient in its quantity of oxygen. In this ſpecies of inflammation the colour is not ſo bright, the pain is not ſo great, nor is the heat ſo much increaſed, as in the preceding. It is moſtly cutaneous, and produces no adheſions; therefore

therefore the matter is readily diffuſed in the cellular membrane, where it propagates the evil. It comes on quickly, but, as in all caſes of debility, there is diſpoſition to act without vital energy to ſupport that action; ſo, for want of ſufficient power to ſuppurate and heal, eryſipelatous inflammation is diſpoſed to terminate in gangrene. In this ſpecies the conſtitution is apt to ſympathize, for it commonly begins with fever, lowneſs of ſpirits, and loſs of ſtrength. It attacks weakly people, and moſt frequently in ſummer.

When vital energy is much diminiſhed, it is ſcarcely poſſible to excite inflammation, even by ſolution of continuity, as may be obſerved in œdematous habits. John Hunter has ſeen the wound after tapping admit water to paſs through it from the abdomen for ſeveral weeks, without being itſelf inflamed, or attended by the peritoneal inflammation. The ſame indiſpoſition to inflame may be frequently obſerved in ſcarifications when the habit is dropſical, for they continue open. He judiciouſly remarks, that in extreme debility this total want of inflammation is ſalutary, for in dropſical caſes, when the parts have power to inflame, but not ſufficient to go through the different ſtages of the inflammation; this generally produces a total loſs of vital power, and the ſhort-lived effort terminates in gangrene.

SECTION

SECTION II.

OF SUPPURATION.

When the *adhesive inflammation* is not capable of resolution, *suppuration* follows, and the inflammatory action ceases. The extreme arteries then secrete a peculiar fluid, which in a healthy state takes the name of *pus*, blended at first with much coagulating lymph, which forms the granulations. But when the vessels are diseased; when they are weak, relaxed, and destitute of vital energy, unable to form pus, they pour forth serum and such fluids as contain either no coagulating lymph, or at least not sufficient to produce good granulations.

No suppuration can take place unless it is preceded by inflammation, for what is otherwise produced is not true *pus*; yet no perfect suppuration follows till inflammation ceases, for as one recedes, the other gradually advances.

The quality of pus depends wholly on the tone and structure of the parts by which it is produced, and whatever specific qualities the parts possess the *pus* receives. Hence syphilitic ulcers produce syphilitic matter, and cancers the cancereous matter. The same precisely may be said of small-pox, &c.

When the structure of the parts is so far changed as to emit blood, which mixes with the *pus*, the whole

whole diſcharge becomes putrid and offenſive, but *perfect pus* will continue unchanged, ſweetiſh to the taſte, and void of ſmell, for weeks together, as in well conditioned ulcers we have frequently occaſion to obſerve. In this ſituation it ſhews no diſpoſition to form new combinations. But the diſcharge from ill conditioned ulcers is ſuch a powerful ſolvent, that it ſpeedily decompoſes animal ſubſtances, and corrodes both lead and ſilver; an effect this, which is attributed by Dr. Crawford to its hepatic air, or ſulphurated hydrogen, as I ſhall explain when I proceed to diſtinguiſh ulcers by their ſpecific characters.

SECTION III.

OF ULCERATION.

ULCERATION is a proceſs conducted wholly by the *abſorbents*, of whoſe importance in the animal economy I have fully treated in my introduction to the *cachexiæ*. When it is needful, they remove whole parts; but for this purpoſe their action muſt be excited by ſome *ſtimulus:* for all other modes of deſtruction are either mechanical or chemical. Indeed this ſtimulus may be itſelf either mechanical or chemical, as when a dead part *preſſes* upon a living part, or when either ſecreted fluids or foreign ſubſtances, applied to any part of the body, diſturb

diſturb the balance of affinities, and unite with its component principles to form new combinations, which effect is diſtinctly to be obſerved in cauſtics. But the moſt common ſtimulus ariſes from diſeaſe, when the organic ſtructure of a part is injured or deſtroyed.

Preſſure from without, if ſlight, produces thickening; if ſtrong, promotes abſorption; but it is curious to remark, that preſſure from within creates abſorption only in that part which is neareſt to the external ſurface of the body. And it is ſtill more curious to obſerve, that *adheſive inflammation* attends the progreſs of ulceration to prevent the eſcape of pus into the cellular membrane.

The abſorbents firſt remove thoſe ſurfaces which are immediately contiguous to the irritating cauſe, but the ulcerative proceſs has no power to deſtroy the cuticle unleſs by the mechanical preſſure of diſtention.

Newly formed parts are much more ſuſceptible of ulceration than the original. Hence it is that ulcers after being healed ſo frequently break out afreſh, and that calluſes are ſo readily abſorbed.

Abſorption may be conducted either with ſuppuration or without, as I have had already occaſion to remark, and it is on the former of theſe operations that depend ſloughing and exfoliation.

The ulcerating ſore is made up of little cavities, and the edge of the ſkin is notched, thin, turned a little out and overhangs: but when the ulcera-

tion

tion ſtops, the edge becomes regular, ſmooth, a little rounded or turned in, and of a purple colour covered with a ſemi-tranſparent white. Nature then proceeds to *granulation*, that, having cleared away whatever was either uſeleſs or offenſive, ſhe may ſpeedily repair ſuch loſſes as have been occaſioned by diſeaſe. It is thus that ſpiders, when they have devoured their prey and caſt out the uſeleſs becauſe indigeſtible reſiduum, haſten to renew the injured portions of their web.

SECTION IV.

OF GRANULATION.

GRANULATIONS are formed by an exudation of the coagulating lymph from the veſſels; and in this ſubſtance new veſſels originate in remarkable abundance. Of this there can be no doubt ſince the obſervations of John Hunter, who took notice, that the white ſubſtance, exactly ſimilar in appearance to coagulating lymph, which he left one day on the ſurface of a ſore, was become the next extremely vaſcular. The ſurface of granulations has the ſame diſpoſitions, and pours forth the ſame kind of pus as the parts from which they are derived.

The colour of healthy granulations is a deep florid red, preciſely like that of *well oxygenated blood*; but when they are of a livid red, they are unhealthy,

and ſhew a languid circulation. When they are healthy they riſe on flat ſurfaces, till they are nearly level with the ſkin, but when they exceed this, they are unhealthy, ſoft, ſpongy, and have no diſpoſition to ſkin. This condition of diſeaſe or health depends on the healthy or diſeaſed condition of the *pus*, which, as I have noticed, depends wholly on the tone and ſtructure of the veſſels by which it is produced.

When a ſore is diſpoſed to heal, the *granulations* contract, and being aſſiſted in this operation by a contractile power in the ſurrounding edge of the cicatrizing ſkin, draw the mouth of the wound together. Should nature ſtand in need of art to reſtrain the luxuriancy of granulation, and make them adhere ſtrongly to each other, bandages may be applied. Theſe ſhould not merely preſs upon the part, but ſhould, if need be, embrace the limb. Dr. Darwin has judiciouſly remarked, that nothing ſo much contributes to increaſe abſorption, for this preſſure doubles the power of the arterial pulſations in promoting the aſcending current of the fluid in the valvular lymphatics, and abſorption prevents the increaſe of *proud fleſh*.

In old ſores of the depending extremities this caution is the more important, becauſe the capillary arteries, having by protracted irritation loſt their tone, pour forth not coagulating lymph, but ſerum, and the limb become œdematous.

SECTION V.

OF THE GENERAL AND SPECIAL MANAGEMENT OF ULCERS.

FROM what has been delivered, it will appear, that to procure good granulations, it will be abſolutely needful to eſtabliſh healthy action in the ſolids, becauſe, as we have ſeen, the nature of both ſuppuration and granulation depends on the ſtate of the ſecretory arteries of the part inflamed. Want of action in them occaſions ſlow circulation and ichorous pus, with black and periſhable granulations. Increaſed action, on the contrary, quickens circulation, and produces laudable pus with healthy granulations.

To promote this healthy action when defective, it is required, that we ſhould invigorate the ſyſtem by bark and ſteel, aſſiſted in their operation by the inſpiration of well *oxygenated air*, the effects of which have been particularly ſeen in the caſe of Mr. Atwood, reported by Dr. Thornton and publiſhed by Dr. Beddoes. Topical applications however are not to be neglected, to excite the languid veſſels. For this purpoſe the metallic oxyds, particularly that of mercury, has been hitherto our chief dependance; but I ſhall have occaſion to ſhew, in a caſe to be related, that nothing hitherto diſcovered, not excepting the flowers of zink, lately and moſt juſtly recommended, can for this purpoſe have a higher

a higher claim to our attention than the *oxalis aceto-cella.*

When vital energy is either naturally loſt, as happens in leucophlegmatic and dropſical habits, or has been exhauſted by excitement, as in violence of inflammation; that is, in the language of the Brunonian ſchool, when extreme debility, direct or indirect, prevails in any part, that part will die. Hence it is, that in either of theſe caſes ulcers put on a putrid appearance, and are diſpoſed to gangrene.

This effect may be diſcovered by fœtor, an offenſive ſmell, by loſs of ſenſation, by flaccidity, and by blackneſs, ſucceeding either to whiteneſs or to florid redneſs in the part; all which together indicate deficiency of *oxygen*, as the vital principle, and of *carbon*, as the bond of union between the ſeveral elements of which animal ſubſtances conſiſt.

It is in ſuch circumſtances that bark, ſteel, wine, and opium, muſt be freely given, and that highly *oxygenated air* muſt be inſpired. At the ſame time the *oatmeal-poultice*, with a large proportion of charcoal in fine powder, as practiſed by Mr. Sandford of Worceſter, and communicated by Dr. Beddoes, will have the moſt benign effect. This produces good pus and healthy granulations in ulcers, which had been foul and putrid. The caſes reported by this gentleman are highly intereſting, and our obligations to Dr. Beddoes, for bringing forward ſuch a maſs of information as we meet with in all his

publications on the medical uſe of *factious airs*, can never be ſufficient acknowledged.

Should the inflammation run too high, the ſubſequent poultice will be uſeful.

℞ Farin. Aven. M. iij. Ol. Oliv. Acet. Acerrimi. q. s. M. f Cataplaſma frigidum.

Take three handfuls of oatmeal, olive oil and vinegar, of each ſufficient to make a poultice; to be applied cold.

The meal of linſeed is excellent in emollient poultices.

When ſores are ſlow in healing, particular attention muſt be paid to the organs of digeſtion, and to the whole of the alimentary canal, for it will be ſometimes neceſſary, not merely to brace the animated fibre by bark and ſteel, but to cleanſe the firſt paſſages, and particularly with calomel, which in doſes of a grain or two every night promotes action in the abſorbent ſyſtem, and prevents the generation of proud fleſh.

When the ſore proceeds to cicatrize no dreſſing is preferable to white diachylon ſpread on lint.

FISTULOUS ULCERS require the knife.

CANCEROUS ULCERS are diſtinguiſhed by their extreme ſenſibility and the acuteneſs of pain by which they are attended, by having their borders turned outwards, and by their *ichorous* diſcharge.

Ichorous pus is conſidered by Jacquin to be the reſiduum of benign pus, which by putrid fermentation has diſcharged ammonia. This ſubſtantially agrees

agrees with an obſervation of Dr. Crawford, who has demonſtrated, that the purulent diſcharge of *cancers* contains ammonia and ſulphurated hydrogen.

We have ſeen that the quality of *pus* depends wholly on the tone and ſtructure of the parts by which it is produced; but then the tone and ſtructure of theſe parts are affected by the pus, whether as immediately produced by them, or as changed by new combinations, which rapidly take place when the natural balance of affinities has been once deſtroyed.

Animal ſubſtances, as we have ſeen, conſiſt principally of hydrogen, carbon, azot, with a ſmall proportion of ſulphur and ſome oxygen, all which, in favourable circumſtances, tend to form ſeparate combinations. For this purpoſe they muſt be expoſed to heat, humidity, and atmoſpheric air. When frozen, they remain unchanged for want of caloric. When ſurrounded by hot air, all their moiſture is evaporated, and no decompoſition is afterwards effected. In a vacuum they are unalterable. But when ſubjected to the action of water, in the common temperature of our atmoſphere, their oxygen eſcapes united with carbon, in the form of carbonic acid air, whilſt their azot and ſulphur each combines with hydrogen to form ammonia and ſulphurated hydrogen. In this caſe the reſiduum is a concrete oil, reſembling *ſpermaceti*, which is compoſed of carbon and hydrogen. If any of the oxygen

combines with hydrogen, it muſt compoſe water; but if the water itſelf is decompoſed, then its oxygen muſt unite both with carbon to increaſe the quantity of carbonic acid air, and with part of the azot to make nitric acid, whilſt its hydrogen, with another portion of azot, forms ammonia.

When, with humidity and heat, animal ſubſtances are at the ſame time expoſed to atmoſpheric air, its conſtituent parts, azot and oxygen, being uncombined, readily unite, one with hydrogen, the other with carbon, to increaſe the ammonia and the carbonic acid air, and this decompoſition will go on till all the elements are ſet at liberty to form new combinations. If theſe ſubſtances are confined in either vital or azotic air, they are quickly decompoſed, the putrid fermentation ſoon begins, and forms in the firſt carbonic acid air and water, in the latter ammonia; but in both caſes we have ſulphurated hydrogen. If, inſtead of taking either azot or oxygen ſeparately combined with caloric, or both together, as we find them blended in atmoſpheric air, we unite them chemically, as in nitric acid, and ſubject the animal fibre to the action of this acid; we ſhall have a rapid decompoſition, and azot with pruſſic acid will be emitted in abundance, which latter, as Jacquin demonſtrates, is azot, hydrogen, carbon, and combined with a ſmall portion of oxygen.

But if the animal ſubſtance is incloſed in either hydrogen gas or in carbonic acid air, no decompo-

ſition, nor conſequently any new combination, can take place.

It is upon this principle that in cancerous ulcers Dr. EWART has been ſo ſucceſsful in delivering his patients from the moſt diſtreſſing part of the diſeaſe, that is, the pain and the offenſive ſmell, both which are prevented by the conſtant application of carbonic acid air. If any one doubts of this effect, let him put a bliſter on his finger, and, when the cuticle has been removed, let him expoſe the finger firſt in a veſſel inverted and filled with vital air, then in a veſſel filled with carbonic acid air, and he will have ſufficient conviction of this truth. To obtain the former, green leaves may be expoſed to the ſun in glaſs jars filled with water and inverted. The latter may be readily collected by a ſyringe from the ſurface of fermenting liquors.

In *cancerous ulcers* the azot ſeems to be the moſt deleterious part of atmoſpheric air, for the oxygen excites inflammation, produces vigorous action for a time in the capillary arteries, which ſecrete the *pus*, and gives the coagulating lymph a diſpoſition to form good granulations. It ſeems to be *carbon*, which in all caſes gives firmneſs and coheſion to both animal and vegetable fibres, to the bones, and even to the particles of calcareous earth in limeſtone, this therefore has a tendency to unite the granulations.

But alas! unleſs the *virus* is itſelf deſtroyed, and the whole ſyſtem is invigorated, the ulcer may approach towards cicatrization, but it will become

again ill conditioned, and all our labour will be loſt.

SCROPHULOUS ULCERS are produced, chiefly in the lymphatic glands, by weak and relaxed veſſels, which have loſt their tone, and therefore have not vital energy ſufficient to produce inflammation, without which, as we have ſeen, there can be neither *ſuppuration* nor *granulation*. They are diſtinguiſhed by their obſtinacy, by their ichorous diſcharge, and by having their edges irregular, ſmooth, and flat.

From what I have ſaid generally on inflammation and ulceration it will be clear, that to heal *ſcrophulous ulcers* we muſt reſtore vital energy to the veſſels of the part affected. This may be accompliſhed either by topical applications or by invigorating the ſyſtem; but, for the reaſons aſſigned in my obſervations on Mr. Atwood's caſe, publiſhed by Dr. Beddoes, were we confined to one of theſe, I ſhould prefer the *latter*. When united, few ſcrophulous ulcers, I believe, can reſiſt their efficacy.

For external application we may uſe the red metallic oxyds, particularly the mercurial, but to excite energetic action, no application can ſurpaſs poultices of wood ſorrel (*oxalis acetoſella*) as mentioned by Dr. Beddoes in his conſiderations on the medical uſe of factitious air. Since that publication I have had an opportunity of uſing it in two ill conditioned ulcers with excellent effect, for both of them in three days, inſtead of ſanies and ichor,

ichor, diſcharged good pus. The ſorrel leaves were ſimply bruiſed, and at the end of four days were ſucceeded by poultices made with the roots of *meadow ſweet (ſpiræa ulmaria)* mixed with the ſour head of butter-milk. In ſix weeks theſe applications perfected a cure in a very obſtinate and foul ulcer of a finger in which the bones themſelves had been diſeaſed. The other caſe is ſo remarkable, that I ſhall give the minutes of it as drawn up by a young ſurgeon, from Madrid, who was on a viſit at my houſe, and attended with me from the beginning.

A boy, aged 18, of a ſcrophulous habit with tumid glands, had his face and neck covered with ulcers, and had loſt a conſiderable portion of his upper lip, which were both ulcerated. October 22, when he applied for my aſſiſtance, we obſerved, that theſe ulcers were pale, ſoft in their ſurfaces, and covered with a thin ichorous pus, which was exceedingly fœtid and offenſive.

Want of food, of fewel, and of clothes, with the abſorption of this purulent diſcharge from numerous ulcers, had reduced him to almoſt the laſt ſtage of *tabes*. His pulſe was weak, ſmall, and frequent; he was emaciated, his ſtrength was exceedingly reduced, he was very coſtive, and was in ſuch diſtreſs of pain that he ſeldom ſlept well by night.

We immediately applied the bruiſed leaves of *oxalis* to all his ulcers, which occaſioned the moſt diſtreſſing pain. The next day, when we renewed the poultice, we found him in much pain, but the pus was thicker and leſs offenſive. He had ſcarcely ſlept.

October

October 24. The oxalis poultice was renewed. Leſs pain. The ulcers look of a more florid red; ſome granulations begin to riſe, the pus is increaſed in quantity, is thick, and has reſumed a yellowiſh hue; he breathes more freely, and ſleeps well; but his pulſe is very weak.

October 26. Many new granulations firm and red. Pus yellowiſh, very abundant and thick; all the veſſels on the ſurface of the ulcers appear to have acquired ſtrong and healthy action. This day we diſcontinued the oxalis, and in its place we ſubſtituted the ſpiræa poultice. Finding him coſtive, I gave him three grains of calomel at night; and as the pulſe continued weak in the extreme, he was ordered to take, three times a day, a wine glaſs full of infuſion of oak bark, with marrubium and ginger.

℞ Cort. Quercin. un. 1. Fol. Marrub. dr. 4. Zinzib. dr. 2. Aq. Font. bul. ℔2. M. f. infuſ. c. c. un. 3. ter in die.

October 28. Leſs pain. Sleeps well. Spirits better. Appetite good. Granulations large and healthy, filling up every where to the ſurface of the ulcers. Suppuration of the beſt quality. Pulſe weak and frequent. Continued the poultices of ſpiræa. Let him have animal food and a glaſs of wine every day.

October 31. No pain. Little inflammation. Granulations uniting every where. Two large ulcers healed. Coſtive. Let him have three grains of calomel at night.

November 9. He has continued the ſpiræa poultice and the oak bark. Two more conſiderable ulcers have been healed for ſome days. The lip is healing faſt, and the noſe looks well, but the ſuppuration is not abundant. His body and mind acquire ſtrength.

November 25. The lip has been healed theſe twelve days, but the parotid glands continue ſwelled, and freſh ulcers

ulcers are breaking out behind his ears and in the back part of his head. Continue the ſpiræa poultices.

November 28. The ulcer on his upper lip has broke out again; that on the noſe increaſes, and others appear about his head. Let him take two grains of calomel twice a week. Renew the poultices of *oxalis* on all his ulcers.

November 30. The oxalis has excited a good and copious ſuppuration. All the ulcers have acquired a healthy appearance.

December 2. Ulcer of the lip is covered with good granulations, thoſe of the noſe and ear have ſuppurated well, and all which had broke out behind the head are healing.

December 5. The lip and noſe, although covered with granulations, do not yet ſeem diſpoſed to cicatrize, but the ulcers behind the head are healed.

December 6. Better in all reſpects. The noſe is the only part which does not ſeem yet diſpoſed to heal.

At this time I left Pewſey.

OBSERVATIONS ON THIS CASE.

We here beyond a doubt diſcover, that the *oxalis* excites energetic action in the veſſels, and brings on that inflammatory diſpoſition in the ulcer, which is eſſential to the formation of good pus and of healthy granulations; for on the ſecond day after its application the ichorous ſuppuration ceaſed, the ſurface of the ulcers aſſumed a florid red, and on the third day every character of ſcrophulous ulceration vaniſhed.

This high degree of excitement continued for a time after the oxalis was changed for the ſpiræa, and when

when it had ceaſed it was renewed, and healthy pus produced when we returned to it again.

May we not conclude from hence, that the *oxalis*, as a ſpecific ſtimulant of vital action in the ſecreting veſſels, ſhould only be diſcontinued when inflammation runs too high, and be again repeated when this falls below the degree which is required to produce a good and abundant ſuppuration, charged with coagulating lymph and diſpoſed to form healthy granulations.

It muſt be remarked, that in this caſe my chief attention was directed towards the *oxalis*; but when I have him under my care again, I ſhall make him regularly take his oak bark infuſion and calomel, both which he neglected; I ſhall give him extract of cicuta, and by paying more particular attention to his general habit, which is infected with *ſcrophula* to a degree I have never met with before, I have little doubt but that I ſhall effect a cure.

Syphilitic ulcers are of two ſorts, the one produced by the external application of the venereal virus; the other by abſorption, which excites inflammation. Syphilitic ulcers are diſtinguiſhed by their paleneſs and peculiar hardneſs, by their being free from pain themſelves, but attended by pain in the bones and by other concomitant ſymptoms of ſyphilitic affection. Their cure by mercurial ointment is ſpeedy and infallible.

Scorbutic ulcers are very fœtid, foul, and apt to bleed.

bleed. The blood is putrid. The bottom of the ulcers ſoft and ſpongy, the margin ſwelled and livid. The neighbouring parts are œdematous and painful. A fungus, reſembling liver, is conſtantly ſprouting up as often as it is deſtroyed either by the knife, or by a cauſtic; but, whenever cut, threatens a dangerous hæmorrhage: they are obſtinate, yet have no diſpoſition to affect the bones.

In theſe, mercurials are highly injurious; whilſt freſh vegetables and ripe fruits, with the juice of oranges and lemons, expedite a cure.

Genus CXXXVII. Herpes.

Tettars.

An aſſemblage of little ulcers, itching much, and not inclined to heal, but terminating in furfuraceous ſcales.

I have already mentioned *herpetic eruptions* under leproſy, where they appear as a conſtitutional affection. But the beſt authors ſeem inclined to rank them with local diſeaſes, and to conſider them merely as *cutaneous* ulcers, wholly independent of the conſtitution. The obſervations of Dr. Garnett upon this ſubject are highly intereſting. With Mr. Bell, he diſtinguiſhes four varieties, all taken from Sauvage.

1. *Herpes farinoſus*, or *Tettars*. 2. Herpes puſtuloſus, or *ſcald head*. 3. Herpes miliaris, or *ring-worm*. 4. Herpes exedens, or *ſhingles*.

The ſecond variety will be ſeparately noticed under *tinea*, which Cullen has taken for a genus, although he might perhaps with propriety have left it as a ſpecies of herpes. The others, though ſpecifically diſtinguiſhed, admit one general mode of treatment for them all.

The perſons moſt ſubject to *herpetic eruptions* are the young, the healthy, the plethoric, who either feed highly or drink hard. They attack chiefly thoſe parts of the body which are expoſed to the alternations of heat and cold, and are much affected by weather. Hence they appear to be inflammatory: and this idea is confirmed by a conſideration of the means moſt effectual for their cure.

Theſe, as we have already ſeen, from the communications of Dr. C. Smith, are dulcified ſpirit of vitriol, (ſp. ætheris vitriolici) in ſuch doſes as gently to evacuate the bowels, and diluted vitriolic acid to the quantity of ſix drams three times a day, which prove diuretic and cathartic.

Sir John Pringle depended chiefly on the following preſcriptions.

℞ Sarſæ un. 3. Aq. Font. ℔ 4. Macera per noctem, Coq. leni igne, vaſe clauſo ad colat. ℔ 2. Cap. ℔ ſs. ter die.

℞ Cort. intern. ulmi recent. un. 2. Nitri dr. 1½. Coccinel.

cinel. gr. 12. Coque ex Aq. pur ℔ 2. ad ℔ 1. Adde Sach. alb. un 1. Cap. ℔ ſs. bis die.

℞ Summit. Junip. un. 3. Coq. ex Aq. Font. ℔ 3. ad ℔ 2. Addendo ſub finem Coctionis. Bac. Junip. un. 1. Colat. adde Aq. Nucis Moſchat. un. 1. M. Cap. ter die, un. 1. Addendo Vin. Antimon. gtt. 10.

The moſt uſual remedy has been *Plummer's Pill*, which is thus prepared.

℞ Sulph. Aurat. Antimon. gr. 4. Calomel. gr. 2. Conſerv. Cynoſbat. q. s. f. Pill. No. 2. c. Pill. j. o. n. h. s.

Theſe cleanſe the alimentary canal; and ſuch is the conſent between the internal and external ſurfaces, that whatever operates on the one muſt affect the other.

Harrowgate water has the ſame effect, and all theſe unite in one intention, which is, to cool the ſyſtem and to abate inflammation.

By the analyſis of Dr. Garnett it appears, that a wine gallon of this famous water contains muriat of ſoda (common ſea ſalt) 615 grains, muriat of magneſia 91 grains, muriat of lime 13 grains, carbonat of lime 18 grains, carbonat of magneſia 5 grains, ſulphat of magneſia (Epſom ſalt) 10 grains, carbonic acid air 8 cubit inches, azot 7, ſulphurated hydrogen 19. We cannot therefore wonder that it proves cathartic, and as ſuch, that it ſhould diminiſh cutaneous inflammation and thereby prevent ulceration. But the moſt intereſting fact

fact related by Dr. Garnett is, that common water impregnated with ſulphurated hydrogen produces powerful effects in ſome herpetic caſes, in which the Harrowgate water had formerly been uſed with good ſucceſs.

This he accounts for in a manner which appears to be conſiſtent with the moſt modern chemical diſcoveries.

He ſuppoſes, that in herpetic complaints there is a ſuperabundance of oxygen in the blood: and it is now well known, that both liver of ſulphur and ſulphurated hydrogen, introduced into the ſyſtem, and uniting with this ſubſtance, which is the principle both of vital energy and of inflammation, forms common water.

Sulphurated hydrogen is obtained by diſſolving hepar ſulphuris in water; for thus a moſt curious decompoſition is affected, whilſt the ſulphur and the alkali combined accompliſh what neither of them alone could do, for they take the oxygen of the water and form a vitriolic ſalt. The hydrogen of the water, at the ſame time uniting with the remainder of the ſulphur, eſcapes as *hepatic air*, that is, *ſulphurated hydrogen*.

According to Jacquin, 100 cubit inches of common water will abſorb 60 cubic inches of this air; but if the quantity is increaſed beyond this proportion, it is decompoſed by the oxygen of the atmoſpheric air, water is formed, and ſulphur is precipitated.

The

The ſame practice as in herpes is recommended in the *gutta roſea*, or red blotches of inebriates, and in both the topical application of unguentum citrinum, to promote digeſtion, will be uſeful.

Young practitioners muſt learn to diſtinguiſh ſyphilitic eruption, appearing near the roots of the hair, from herpes. Sauvage indeed makes this a ſpecies, which he calls *herpes ſyphiliticus*, and therefore recommends mercurials.

Genus CXXXVIII. *Tinea.*

A ſcald head.

Small ulcers at the root of the hairs, which produce a friable white cruſt.

It is principally the diſeaſe of infants and of children, who have a relaxed habit, are ill fed, or gorged with food, and whoſe nurſes neglect to keep them clean.

Theſe ulcers, for want of being cleanſed, become extremely foul, and, as the hair cannot be combed, vermin increaſe to ſuch a degree, as to ſtimulate the part, and cauſe a determination to the head; the miſerable ſufferer, deprived of ſleep, becomes pale and atrophic; and, if the diſorder is neglected, it terminates in hectic.

To effect a cure, it will be needful to cut the hair very ſhort, or even by a pitch plaſter to tear them up by the roots. The head muſt then be cleanſed with warm water and ſoap, or with cream and honey, after which the ulcers may be waſhed with a ſolution of corroſive ſublimate in the proportion of ten grains to a pint of water. But from what I have had occaſion to obſerve in the uſe of wood ſorrel for ſcrophulous ulcers, I ſhall try it on the next ſcald head I meet with, after which I ſhall apply the charcoal poultice with little doubt of ſpeedily and ſafely perfecting a cure.

Should the ſtudent be more inclined to follow the practice of Sir John Pringle, he may uſe this cerate.

℞ Emplaſt. de Minio. Ung. baſilic. Flav. a p. æ Ligneſcant Simul et hujus portio craſſe extendatur ſuper lint. admoveatur capiti et bis die renovetur.

Or he may anoint with Norway pitch and ſulphur every night.

The ſtudent muſt be cautious not to dry up theſe ulcers by aſtringent applications, before they have been properly digeſted, leſt he ſhould thereby bring on more dangerous diſeaſes, either of the inflammatory or ſpaſmodic orders. And ſhould he be conſulted, after ſuch effects have been thus produced, he muſt without loſs of time apply a plaſter ſprinkled with cantharides to the head.

In Edinburgh, ſome practitioners are in the habit of giving hemlock (*conium maculatum*) internally with good ſucceſs. They begin with ſmall doſes, and increaſe gradually till they produce vertigo: then omit the medicine for a few days, and after that reſume it.

Sauvage has diſtinguiſhed nine ſpecies of tinea, among which we find *tinea ſyphilitica*; but excepting this and his *tinea humida*, when it is ſymptomatic of either *ſcrophula* or *ſyphilis*, they all require to be treated in the manner I have above deſcribed.

When tinea proceeds from either venereal affection or from ſcrophula, attention muſt be paid to the primary diſeaſe.

Genus CXXXIX. *Pſora.*

The Itch.

Small puſtules with watery heads, appearing firſt on the wriſts and between the fingers. It is contagious.

This filthy, this infectious diſeaſe, cauſed by the little inſect which Linnæus has denominated *acarus exulcerans*, is readily cured by mercurial ointment, by ſulphur, and by the vitriolic acid. In the country we frequently apply a quickſilver girdle without the leaſt apprehenſion of any evil conſequence, or in

caſe of timidity in the patient, we cauſe him to be anointed with brimſtone and hog's-lard.

In cities, where the ſmell of ſulphur would diſguſt, it is more common to adopt the following:

℞ Acid. Vitriol. gtt. 10. Aq. Roſar. gtt. 20. Axung. Porcin. ℥j. Eſſent. Citri. gtt. 15. M. f. Liniment. m. et v. utend.

That is,

Hog's-lard one ounce; vitriolic acid ten drops; roſe water twenty drops; eſſence of lemon fifteen drops. Make an ointment to be uſed morning and evening.

The patient may likewiſe waſh two or three times a day with elder flower water, acidulated with vitriolic acid.

This plan of cure by vitriolic acid may be forwarded by an electuary of nitre one dram with ſix drams of ſulphur mixed up in honey, of which the patient may take the ſize of a nutmeg three times a day.

Bathing in *Harrowgate-water* very ſpeedily effects a cure.

Genus CXL. *Fractura.*

The fracture of bones.

In caſes of fracture the bone muſt be reſtored to its proper direction, the extremities muſt be in contact,

contact, the limb must be perfectly at rest, and the degree of inflammation must be regulated.

When these precautions have been neglected, it sometimes happens, that a preternatural joint is formed. The extremities of the fractured bone become rounded, smooth, and covered with a cartilage, a membraneous substance embraces them all round, and, like a capsular ligament, both limits their motion and keeps them in their place.

But unfortunately, for want of proper muscles, this new acquisition is not only unprofitable, but a great incumbrance, for the limb itself is thereby rendered useless.

To remedy this evil the joint must be opened, the new capsular ligament must be destroyed, the cartilaginous terminations must be cut off, the extremities of the bone must be in contact with each other, and by rest their union must be suffered to take place.

Genus CXLI. *Caries.*

The exulceration of bones.

Caries begins with a separation of the periosteum, attended by whiteness and semitransparency of the bone, which soons turns black, and emits a most offensive smell. Caries is divided into dry and humid,

mid, the former ſlow in its progreſs, the latter rapid, and attended both by a fœtid diſcharge, and by conſiderable pain. Incipient caries, properly ſpeaking, is *necroſis*, and in its progreſs we have *exfoliation*, followed by *exoſteſes*; but the term *necroſis* is commonly confined to the mortification of a cylindrical bone, which is attended by the production of a new bone incloſing the old one, now dead. The flat bones, owing to their peculiar ſtructure, are ſubject only to exfoliation as the conſequence of caries. In fact, the only bone of the cranium liable to renovation is the lower jaw, and this, it muſt be obſerved, has ſome analogy to the cylindrical bones.

Of this a curious inſtance occurred in Edinburgh, in which the teeth remained, and were properly ſupported in their places by the new jaw.

The common ſymptoms of necroſis are:

1. Deep ſhooting pain referred to the inſide of the bone, which gradually increaſes in its intenſity, and is not affected by preſſure.

2. Tumour in the direction of the bone without change of colour.

3. Small ulcers diſcharging fœtid pus.

4. Slow fever, and frequent rigors.

Theſe ſymptoms demonſtrate the preſence of inflammation followed by gangrene.

Caries

Caries and necroſis, according to Sauvage, may be divided into, 1. Pure. 2. Rachitic. 3. Scrophulous. 4. Cancerous. 5. Scorbutic. 6. Syphilitic. 7. Variolous. But of theſe the moſt common, it is conceived, is the ſyphilitic, on account of its ſpecific action on the bones.

It has been imagined, that mortification of the bones is occaſioned always by inflammation of the perioſteum; but recent experiments and obſervations have demonſtrated, that the perioſteum may be inflamed, and in part deſtroyed without producing *necroſis* in the bones, and that necroſis has been far advanced without any morbid affection of the perioſteum. On the other hand, it has been proved, that when the ſpinal marrow has been deſtroyed, necroſis in the bone has been univerſally the conſequence.

May we now therefore look for the cauſe of *necroſis* in the medullary texture, which, as it abounds with arteries, muſt be liable to the inflammation?

When vitality is deſtroyed in any portion of a bone, it becomes a ſtimulus, like any extraneous body, to the living fibre, excites the abſorbents to make a ſeparation between the living and the dead, whilſt the exhalent arteries convey oſſific matter to repair the injury thus occaſioned by diſeaſe.

Nature then proceeds to get rid of this incumbrance; for as the dead bone ſtimulates the new production, ulcerative inflammation with ſuppuration follow, fiſtulous openings in the new bone are

formed, and the dead portions, if not extracted, are diſſolved by the pus and floated off. But as hectic is ſometimes conſequent on necroſis, when nature is not aſſiſted by art, therefore the ſurgeon with his biſtury, trepan and chiſſel ſhould cut through the new bone, divide the old one, and extract the fragments. Nature then, haſtening to repair the damages ſuſtained, fills up the vacuities with new bone, and in this, as in all her efforts to relieve herſelf, calls upon us to admire and adore the infinite wiſdom, benevolence, and power, of the great JEHOVAH.

A NOSO-

A

NOSOLOGICAL SYNOPSIS,

ADAPTED TO THIS WORK.

CLASSES.

I. Pyrexiæ. After cold ſhivering, a frequency of pulſe, with increaſe of heat and thirſt.

II. Neuroses. Affections of ſenſe and motion, diſturbed;—without either idiopathic pyrexia, or topical diſeaſe.

III. Cachexiæ. A depraved habit of body;—without pyrexia, and independent of neuroſis, as original diſeaſes.

IV. Locales. Morbid affections, which are partial.

ORDERS.

ORDERS.

Class I. Pyrexiæ.

I. *Febres.* Pyrexia with loſs of appetite and diminution of ſtrength without primary local affection.

II. *Phlegmaſiæ.* Pyrexia, with topical pain and inflammation.

III. *Exanthemata.* Contagious diſeaſes, beginning with fever, and followed by an eruption on the ſkin.

IV. *Hæmorrhagiæ.* Pyrexia, with a diſcharge of blood, without any external injury.

Class II. Neuroses.

I. *Comata.* A diminution of the powers of voluntary motion, with ſleep, or the ſenſes impaired.

II. *Adynamiæ.* A diminution of the involuntary motions, of either vital or natural functions.

III. *Spaſmi.* A morbid contraction, or motion of muſcular fibres.

IV. *Veſaniæ:* The judgment impaired, without either coma, or pyrexia.

Class

Class III. Cachexiæ.

I. *Marcores.* Universal emaciation.

II. *Intumescentiæ.* General swellings.

III. *Impetigines.* Cachexia, deforming the external parts of the body, with tumours, eruptions, &c.

Class IV. Locales.

I. *Dysæsthesiæ.* The senses injured, or destroyed by the imperfection of the organs.

II. *Dysorexia.* The appetite deficient, or depraved.

III. *Dyscinesiæ.* Motion impeded, or depraved, from an imperfection of the organ.

IV. *Apocenoses.* A superabundant flux of blood, or humours, without pyrexia.

V. *Epischeses.* A suppression of excretions.

VI. *Tumores.* Partial swellings, without inflammation.

VII. *Ectopia.* Parts displaced.

VIII. *Dyalyses.* A solution of continuity.

GENERA,

GENERA,

AND THEIR SYMPTOMS.

Class I. Pyrexiæ. Order I. Febres.

1. *Intermittens.* Cold, hot, and ſweating ſtages, in ſucceſſion, attend each paroxyſm, and are followed by an intermiſſion, or remiſſion.

2. *Continua.* No intermiſſion, yet ſubject to exacerbations twice in one day.

Species.

1. *Synocha.* Heat increaſed; pulſe frequent, ſtrong, hard; urine high coloured; ſenſes not much impaired.

2. *Typhus.* Contagious. Heat moderate; pulſe quick, weak, ſmall; ſenſes much impaired; proſtration of ſtrength.

3. *Hectica.* Exacerbations at noon, but chiefly in the evening, with ſlight remiſſions in the morning, after nocturnal ſweats; the urine depoſiting a furfuraceo-lateritius ſediment; appetite good; thirſt moderate.

Class I. Pyrexiæ. Order II. Phlegmaſiæ.

4. *Phlogoſis.* Redneſs; heat; pain; and tumour on the ſurface of the body.

Species.

Species.

1. *Phlegmone.* Inflammation of a bright red colour; tumour pointed, throbbing, and tending to ſuppuration.

2. *Erythema.* Inflammation of a dull red colour, vaniſhing upon preſſure, ſpreading unequally, with a burning pain, and tumour ſcarcely perceptible, ending in diſquamation, or veſicles of the ſcarf-ſkin.

5. *Ophthalmia.* Redneſs and pain of the eye; intolerance of light; with effuſion of tears.

Species.

1. *Ophthalmia Membranarum.* Inflammation in the coats of the eye, moſt commonly in the tunica conjunctiva.

2. *Ophthalmia Tarſi.* Small ulcers in the ſebaceous glands of the tarſus diſcharging a glutinous matter.

6. *Phrenitis.* Strong fever; violent head-ach; redneſs of face and eyes; impatience of light and noiſe; watchfulneſs; and furious delirium.

7. *Cynanche.* Pain, and redneſs of the fauces; deglutition, and reſpiration, difficult.

8. *Catarrhus.* Increaſed excretion of mucus from the membrane of the noſe, fauces and bronchiæ, with pyrexia, attended by cough, thirſt, laſſitude, increaſed ſenſibility to cold, and want of appetite.

9. *Pneumonia.* Pyrexia; difficult reſpiration; cough; and pain in the thorax.

10. *Carditis.* Pyrexia; pain in the region of the heart; anxiety; difficult breathing; cough; irregular pulſe; palpitation; fainting.

11. *Gaſtritis.* Pyrexia; anxiety; heat and pain in the epigaſtrium, increaſed when any thing is taken into the ſtomach; vomiting; hickup; pulſe ſmall and hard; proſtration of ſtrength.

12. *Enteritis.* Pyrexia; fixed pain in the abdomen; coſtiveneſs; vomiting.

13. *Hepatitis.* Pyrexia; tenſion and pain, more or leſs acute, in the right hypochondrium, uſually referred to the top of the right ſhoulder, and extending to the clavicle, increaſed by lying on the left ſide; urine high coloured.

14. *Splenitis.* Pyrexia; tenſion, heat, tumour, and pain in the left hypochondrium, increaſed by preſſure.

15. *Nephritis.* Pyrexia; pain in the region of the kidneys, and ſhooting along the courſe of the ureter; drawing up of the teſticle; numbneſs of the thigh; vomiting; urine high coloured, and frequently diſcharged; coſtiveneſs, and colic pains.

16. *Cyſtitis.* Pyrexia; tumour and pain in the hypogaſtrium;

pogaſtrium; frequent and painful diſcharge of urine; teneſmus.

17. *Hyſteritis.* Pyrexia; heat, tenſion, tumour, and pain in the hypogaſtrium; pain in the os uteri, when touched; vomiting.

18. *Arthropuoſis.* Pain of the joints, or muſcles, often after contuſion, deep, blunt, of long continuance; little or no tumour; no inflammation; pyrexia ſlight at firſt, at laſt hectic; and finally terminating in abſceſs.

19. *Rheumatiſmus.* Pyrexia; pains in the joints, increaſed by the action of the muſcles belonging to the joint; heat on the part. The blood after veneſection exhibits an inflammatory cruſt.

This diſeaſe terminates in

Arthrodynia, pain in the joints without pyrexia.

Species.

1. *Lumbago*, affecting chiefly the loins.
2. *Iſchias*, the hip joint.

20. *Odontalgia.* Tooth-ach.

21. *Podagra.* Pyrexia; pain in the joints, chiefly of the great toe, and eſpecially of the hands and feet, returning at intervals: previous to the attack, the functions of the ſtomach are commonly diſturbed.

22. *Variola.* Synocha; eruption of red pimples the third day, which on the eighth contain pus, and drying, fall off in cruſts.

23. *Varicella.* Moderate ſynocha; pimples bearing ſome reſemblance to *variola*, quickly forming puſtules, which contain a fluid matter, and after three or four days from their firſt appearance deſquamate, leaving no cicatrix.

24. *Rubeola.* Synocha; hoarſeneſs; dry cough; ſneezing; drowſineſs; about the fourth day eruption of ſmall red points, diſcernible by the touch, which, after three days, end in meally diſquamation. Blood, after veneſection, exhibits inflammatory cruſt.

25. *Miliaria.* Synochus; cold ſtage conſiderable; hot ſtage attended with anxiety and frequent ſighing; ſweat of a ſtrong and peculiar ſmell; eruption, preceded by a ſenſe of pricking, firſt on the neck and breaſt, of ſmall red pimples, which in two days become white puſtules, deſquamate, and are ſucceeded by freſh pimples.

26. *Scarlatina.* Contagious ſynocha; fourth day face ſwells, and a ſcarlet eruption appears on the ſkin in patches; which, after three

or

or four days, ends in diſquamation of the cuticle, or is ſucceeded by anaſarca.

27. *Pemphigus.* Pyrexia, attended by ſucceſſive eruptions about the ſize of almonds filled with yellowiſh ſerum, and in three or four days ſubſide.

28. *Frambæſia.* Fungi like mulberries growing out of the ſkin, in various parts of the body, diſcharging ichor.

CLASS I. PYREXIÆ. Order IV. Hæmorrhagiæ.

29. *Epiſtaxis.* Bleeding at the noſe, with pain or fulneſs of the head.

30. *Hæmoptyſis.* Coughing up florid, or frothy blood; heat or pain in the cheſt; irritation in the larynx; ſaltiſh taſte.

31. *Phthiſis.* Emaciation; debility; cough; hectic; purulent expectoration; hæmoptyſis; diarrhœa.

32. *Hæmorrhois.* Flux of blood from the anus; pain there, and hæmorrhoids; vertigo; pain in the loins and head-ach.

33. *Menorrhagia.* A too copious menſtrual flux.

Class II. Neuroses. Order I. Comata.

34. *Apoplexia.* Abolition in ſome degree of the powers of ſenſe and motion, with ſleep, and ſometimes ſnoring, the reſpiration, and motion of the heart, remaining.

35. *Hydrocephalus internus.* Pain in the head, laſſitude, drowſineſs, and dilated pupils.

36. *Cataphora.* Sudden loſs of ſenſation and volition, the body and limbs retaining the poſition, which they had when ſeized, or which is given to them during the continuance of the fit.

37. *Paralyſis.* A loſs of the power of voluntary motion affecting certain parts.

Class II. Neuroses. Order II. Adynamiæ.

38. *Syncope.* The reſpiration, and action of the heart, either ceaſe, or become much weaker than uſual, with paleneſs and coldneſs.

39. *Dyſpepſia.* Want of appetite; nauſea; vomiting; flatulence; heart-burn; coſtiveneſs; and pain in the ſtomach, with other ſymptoms of debility in the organ of digeſtion.

40. *Hypochon-*

40. *Hypochondriaſis.* Dyſpepſia; languor and want of energy; dejection of mind and apprehenſion of evil, more eſpecially reſpecting health, without ſufficient cauſe; with a melancholic temperament.

CLASS II. NEUROSES. Order III. Spaſmi.

In the animal functions.

41. *Raphania.* A ſpaſmodic contraction of the joints, with convulſive motions and moſt violent pain: periodical.

42. *Epilepſia.* Convulſions with ſleep, and uſually froth iſſuing from the mouth.

43. *Convulſio.* Alternate relaxations, with violent and involuntary contractions, of the moving fibres, without ſleep.

44. *Chorea.* Convulſive motion of the limbs or trunk.

45. *Tetanus.* Spaſmodic rigidity of almoſt the whole body.

In the vital functions.

46. *Palpitatio.* A palpitation, of the heart, either conſtant, or frequently returning.

47. *Dyſpnœa.* Difficult reſpiration, continual, and

without ſenſe of ſtricture. Cough frequent through the whole courſe of the diſeaſe.

48. *Aſthma.* Difficult reſpiration returning at intervals, with a ſenſe of ſtricture acroſs the breaſt and in the lungs; a wheezing; hard cough at firſt, but more free towards the cloſe of every paroxyſm, with a diſcharge of mucus, followed by a remiſſion.

49. *Pertuſſis.* Convulſive, ſtrangulating cough, with hooping, relieved by vomiting: contagious.

In the natural functions.

50. *Pyroſis.* Heartburn, with copious eructation, generally of a watery inſipid fluid.

51. *Dyſenteria.* Frequent griping ſtools, chiefly mucus, ſometimes mixed with blood. It is commonly attended by teneſmus, and is contagious.

52. *Colica.* Pain in the lower belly, and twiſting round the navel; vomiting, coſtiveneſs.

53. *Cholera.* A purging and vomiting of bile; anxiety; painful gripings; ſpaſms of the abdominal muſcles, and thoſe of the thighs.

54. *Diarrhœa.* Frequent liquid ſtools with the natural excrement, but not contagious, and ſeldom attended with pyrexia.

55. *Diabetes.*

55. *Diabetes.* A ſupperabundant diſcharge of urine, which is limpid, and ſweetiſh to the taſte.

56. *Hyſteria.* A grumbling noiſe in the belly; a ball aſcending to the throat, with a ſenſe of ſuffocation; ſtupor; inſenſibility and convulſions; involuntary laughing and crying; ſleep interrupted by ſighs; urine limpid and abundant, previous to and after the fit; great ſenſibility and irritability of mind.

57. *Hydrophobia.* A dread of water, as inducing painful convulſions of the pharynx.

CLASS II. NEUROSES. Order IV. Veſaniæ.

58. *Oneirodynia.* Diſturbed imagination during ſleep.

59. *Melancholia.* Erroneous judgment, but not merely reſpecting health, from imaginary perceptions, or recollections, influencing the conduct, and depreſſing the mind with ill grounded fears; not combined with either pyrexia or comatoſe affections; often appearing without dyſpepſia, yet attended with coſtiveneſs, chiefly in perſons of rigid fibres and torpid ſenſibility.

60. *Mania.* A conception of falſe relations, and an erroneous judgment, ariſing from imagi-

nary perceptions or recollections, exciting the paſſions, and producing unreaſonable actions or emotion, with a hurry of mind in purſuing a train of thought, and in runing from one train of thought to another, attended with incoherent and abſurd ſpeech, called raving, and violent impatience of either contradiction, or reſtraint.

61. *Amentia.* Imbecillity of intellect, by which the relations of things are either not perceived or not recollected.

CLASS III. CACHEXIÆ. Order I. Marcores.

62. *Tabes.* Emaciation; weakneſs; hectic.

CLASS III. CACHEXIÆ. Order II. Intumeſcentiæ.

Adipoſe.

63. *Polyſarcia.* Troubleſome obeſity.

Flatulent.

64. *Pneumatoſis.* Air collected in the cellular texture under the ſkin, rendering it tenſe, elaſtic, and crepitating.

65. *Tympanites.*

65. *Tympanites.* Elaſtic diſtention of the abdomen, not readily yielding to preſſure, and ſounding like a drum, with coſtiveneſs, and atrophy; but no fluctuation.

66. *Phyſometra.* A permanent elaſtic ſwelling in the hypogaſtrium from flatulent diſtention of the womb.

Aqueous.

67. *Anaſarca.* Swelling on the ſurface of the body; not elaſtic; pitting by the preſſure of the finger; and riſing ſlowly to its former fulneſs.

68. *Hydrocephalus.* External ſwelling of the head, ſoft, not elaſtic.

69. *Hydrorachitis.* Tumour in new-born infants on the lumbal vertebræ, ſoft and ſmall.

70. *Hydrothorax.* Dyſpnœa; paleneſs of face; œdematous ſwellings of the feet; ſcarcity of urine; impatience of an horizontal poſition, with ſudden ſtarting from ſleep, and palpitation; fluctuation of water in the cheſt.

71. *Aſcites.* Swelling of the abdomen, tenſe, and ſcarcely elaſtic; with fluctuation.

72. *Hydrometra.* A ſwelling in the hypogaſtrium of females not pregnant; with fluctuation; no ſuppreſſion of urine.

73. *Hydrocele.* A ſoft tumour of the ſcrotum, increaſing ſlowly, without pain, fluctuating, generally pellucid.

Of the ſolids.

74. *Phyſconia.* Tumour occupying chiefly one part of the abdomen, increaſing ſlowly, and neither ſonorous nor fluctuating.

75. *Rachitis.* Large head; prominent forehead; protruded ſternum; flattened ribs; big belly; emaciated limbs, with great debility.

CLASS III. CACHEXIÆ. Order III. Impetigines.

76. *Scrophula.* Swelled lymphatic glands; thick upper lip; obſtinate ulcers: ophthalmia tarſi; indolent tumours on the joints; fair complexion; irritable habit.

77. *Syphylis.* A diſeaſe ariſing from impure connection, and appearing generally after a local affection of the organs, occaſioning chancres; buboes; ulcers in the mouth and noſe; cluſtered pimples of a copper colour ending in ſcabby ulcers chiefly ſituated near the hairy ſcalp; blotches on the ſurface of the body; nocturnal pain in the bones; nodes, &c.

78. *Scorbutus.* Extreme debility; complexion pale

and bloated; ſpungy gums; livid ſpots on the ſkin; breath offenſive; œdematous ſwellings in the legs; hæmorrhages; foul ulcers; urine fœtid; ſtools extremely offenſive.

79. *Elephantiaſis.* Skin thick, rough, wrinkly, unctuous, and void of hair; face deformed, with tubera; voice hoarſe and ſounding through the noſe; want of feeling in the extremities.

80. *Lepra.* The ſkin rough and chopped, with white furfuraceous ſcales and cruſts, under which is frequently a moiſture, with itching.

81. *Trichoma,* or *Plica Polonica.* The hair grows coarſe and twiſted into inextricable tangles. It is contagious.

82. *Icterus.* Yellowneſs of the ſkin and eyes; fæces white; urine of a high colour. It tinges linen yellow.

83. *Chloroſis.* Dyſpepſia; livid paleneſs; great debility; palpitation; depraved appetite, with *amenorrhœa.*

5 DEC 80

CLASS IV. LOCALES. Order I. Dyſæſtheſiæ.

84. *Caligo.* Sight diminiſhed, or deſtroyed, by the interpoſition of a dark body, between the object and the retina.

85. *Amauroſis.* Sight diminiſhed, or deſtroyed, without any viſible injury of the eye; the pupil dilated and immoveable.

86. *Dyſopia.* Sight depraved, requiring one certain quantity of light, one particular diſtance, or one poſition.

87. *Pſeudoblepſis.* Sight depraved, creating objects, or repreſenting them different from what they are.

88. *Dyſecœa.* Hearing diminiſhed, or deſtroyed.

89. *Paracuſis.* Hearing depraved.

90. *Anoſmia.* Smell diminiſhed, or deſtroyed.

91. *Ageuſtia.* Taſte diminiſhed or deſtroyed.

92. *Anæſtheſia.* Touch diminiſhed or deſtroyed.

CLASS IV. LOCALES. Order II. Dyſorexiæ.

93. *Bulimia.* Appetite voracious or canine.

94. *Pica.* Appetite depraved, or a ſtrong deſire of unnatural food.

95. *Polydipſia.* Exceſſive thirſt.

96. *Satyriaſis.* Exceſſive and violent deſire in men.

97. *Nymphomania.* The ſame in women.

98. *Noſtalgia.* Impatience when abſent from ones native home, and vehement longing to return, attended with gloom and melancholy, loſs of appetite, and want of ſleep.

99. *Anorexia.* Appetite impaired.

100. *Anaphrodiſia.* Impotence.

Class IV. Locales. Order III. Dyſcineſiæ.

101. *Aphonia.* Suppreſſion of the voice, without either ſyncope, or coma.

102. *Mutitas.* Dumbneſs.

103. *Paraphonia.* Depravation of voice.

104. *Pſelliſmus.* Vitiated articulation of the voice.

105. *Strabiſmus.* Squinting.

106. *Contractura.* A rigid contraction of a joint.

Class IV. Locales. Order IV. Apocenoſes.

107. *Profuſio.* Loſs of blood.

108. *Ephidroſis.* A violent and morbid ſweating.

109. *Epiphora.* A flux of tears.

110. *Ptyaliſmus.* A ſalivation.

111. *Enureſis.* Involuntary diſcharge of urine.

112. *Gonorrhœa.* A preternatural flux from the urethra in men.

Class IV. Locales. Order V. Epiſcheſes.

113. *Obſtipatio.* Coſtiveneſs.

114. *Iſchuria.* Suppreſſion of urine.

115. *Dyſuria.* Difficulty, and pain, in diſcharging water.

116. *Dyſpermatiſmus.* Seminis in actu venereo tarda impedita, et ad generationem inſufficiens emiſſio.

117. *Amenorrhœa.* Menſes wholly or partially obſtructed without pregnancy.

Class IV. Locales. Order VI. Tumores.

118. *Aneuriſma.* A ſoft tumour, with pulſation, on arteries.

119. *Varix.* A ſoft tumour without pulſe, on veins.

120. *Ecchymoma.* A black and blue ſwelling, either from a bruiſe, or from a morbid extravaſation of blood.

121. *Schirrus.* A hard tumour of a glandular part, indolent, and not readily ſuppurating.

122. *Cancer.* A hard tumour of a glandular part, painful and obſtinate, which terminates in the foulest ulcer.

123. *Bubo.* A ſuppurating tumour of conglobate glands.

124. *Sarcoma.* A ſoft fleſhy excreſcence, not painful.

125. *Verruca.* A wart.

126. *Clavus.* Corns.

127. *Lupia.* A cyſt under the ſkin, moveable, ſoft, indolent.

128. *Ganglion.* A hard tumour moveable, on the tendon, on the cellular vagina of the tendon.

129. *Hydatis.*

129. *Hydatis.* A cuticular cyſt full of an aqueous fluid.

130. *Hydarthus.* A white ſwelling on the joints.

131. *Exoſtoſis.* A hard tumour on the bone.

CLASS IV. LOCALES. Order VII. Ectopiæ.

132. *Hernia.* The diſplacing of a ſoft part, covered by the common teguments.

133. *Prolapſus.* The protruſion of a ſoft part, uncovered.

134. *Luxatio.* The disjointing of a bone.

CLASS IV. LOCALES. Order VIII. Dialyſes.

135. *Vulnus.* A wound.

136. *Ulcus.* An ulcer diſcharging pus or ichor.

137. *Herpes.* An aſſemblage of little creeping ulcers, itching much, and not inclined to heal, but terminating in furfuraceous ſcales.

138. *Tinea. A ſcald head.* Small ulcers at the root of

of the hairs, which produce a friable white cruſt.

139. *Pſora.* Small puſtules with watery heads, appearing firſt on the wriſts, and between the fingers. Contagious.

140. *Fractura.* The fracture of bones.

141. *Caries.* The exulceration of bones.

FINIS.

5 DEC 60

GENERAL INDEX.



A. is Vol. I.—B. is Vol. II.

Absorbents, their uſe. B. 184.
Abſorbents, their morbid action. B. 190.
Adynamia. A. 264.
Æſchylus hypocaſtanum. A. 15. 17.
Agueſtia. B. 383.
Ague. See fever intermittent.
Agrypnia. B. 77.
Amauroſis. B. 357.
Amenorrhœa. B. 450.
Amentia. B. 180.
Anæſtheſia. B. 384.
Aneleptic pill, how made. A. 146.
Anaphrodiſia. B. 398.
Anaſarca. B. 243.
Aneuriſm. B. 454.
Animal ſubſtances, their chemical analyſis. B. 204.
Anodynes. B. 13. 237.
Anorexia. B. 395.
Anoſmia. B. 382.
Antimonial wine. A. 14.
Antimonials, their uſe. A. 12.
Antiſpaſmodic formulæ. A. 60. 140. 141. B. 48. 162 172.
St. Antony's fire. A. 92.
Aphonia. B. 400.
Apocenoſes. B 349. 415.
Apoplexia. A. 227. 276.
Apoplexy, ſpaſmodic. A. 238.
Appetite voracious or canine. B. 385.
Appetite, when deficient in melancholia. B. 115.
Appetite, deficient or depraved. B 385. 386. 395.
Arnica montana. A. 257.
Arſenic, as prepared by Dr. Fowler. A. 74.
Arthropuoſis. A. 134.
Articulation vicious. B. 408.
Aſcites. B. 268.
Aſphyxia. A. 278.
Aſthma. A. 389.
Aſtringent formulæ. A. 62. 63. 140. 161. 180. 207. 208. 219. 296. 343. B 3. 11. 13. 14. 41. 44. 162. 227. 258. 286. 332.
Atrabilis, as the cauſe of melancholia. B. 110.
Attractions vital, obſervations on. B. 117.
Azot, its combinations. B. 204.
Azot, its uſe in the animal economy. B. 211.
Azotic air, what it is. A. 26.

Bandages, their action on the abſorbents. B. 199.
Bile, its uſe. A. 33.

Bleeding at the noſe. A. 182.
Blindneſs. B. 351.
Blood, loſs of. B. 415.
Blood, the colour of, how cauſed. B. 112.
Borborygmi. B. 242.
Brain, obſervations on. B. 60.
Bubo. B. 465.
Bulimia. B. 385.

Cachexiæ, A. 1. B. 182.
Caligo. B. 351.
Camphor, obſervations on. A. 18.
Cancer. B. 462.
Canine madneſs. B. 52.
Carbon, its combinations. B. 204.
Carbon, its uſe in the animal economy. B. 210.
Carditis. A. 125.
Caries. B. .
Carus. A. 229. 233. 236.
Catalepſy. A. 248.
Cataphora. A. 248.
Cataract. B. 351.
Catarrh. A. 104.
Cathartic formulæ. A 57. 78. 236. 295. B. 13. 21. 92. 121. 122. 124. 141. 149. 164. 165. 249. 250. 285. 326.
Chalybeates. See iron.
Chicken-pox. A. 163.
Chin-cough. B. 1.
Chloroſis B. 342.
Cholera. B. 16.
Chorea. A. 362.
Cinchona. A. 16.
Clavus. B. 470.
Clutton's Febrifuge. A. 54
Clyſters. A. 67. 236. B. 13.
Cold, obſervations on. A. 7. 8.
Coldneſs of the extremities in melancholia. B. 114.
Colic. B. 14.
Colic of Poitou. A. 253.
Comata. A. 225.
Conſent of parts. A. 321.
Conſumption. See phthiſis.
Contraction of a joint. B. 413.
Convulſio indica. A. 372.
Convulſions. A. 361.
Corns. B. 470.
Coſtiveneſs. B. 431.
....., how occaſioned in melancholia. B. 115.
Cough, ſympathetic. A. 112. 194.
Critical days and criſis of fever. A. 20. 41.
Croup. A. 102.
Cruent operation in femoral hernia. B. 482.
Cynanche. A. 97.
.....maligna. A. 100.
.....parotidæa. A. 104.
.....pharyngæa. A. 103.
.....tonſillaris. A. 98.
.....trachealis. A. 102.
Cyſtitis. A. 132.
Cyſtocele. B. 488.

Dance of St. Vitus. A. 362.
Deafneſs. B. 368. 371.
....., caſes of. B. 375.
Debility, direct and indirect, obſervations on. B. 191.
..... its diſtinctions. A. 54. 59. B. 94.
..... incipient. A. 22.
Determination, preternatural to the brain accounted for. B. 157.
Diabetes. B. 24.
Dialyſes. B. 350. 500.

Diaphoretic

Diaphoretic formulæ. A. 139. B. 149.
Diarrhœa. B. 19.
Diet, in typhus fever. A. 35.
Digeſtion, obſervations on A. 27. 30 277.
..... as depending on vital heat. B. 14.
Dionœa muſcipulæ. A. 7.
Diſlocations. B. 497.
Diuretic formulæ. B. 253. 254. 255.
Dreams, obſervations on. A. 21. B. 87.
Dropſy of the abdomen. B. 268.
..... in the cheſt. B. 266.
..... of the ſcrotum. B. 276.
..... univerſal. B. 243
..... of the womb. B. 275.
Dumbneſs. B. 401.
Dyſæſtheſia. B. 349. 350.
Dyſcineſiæ. B. 349. 399.
Dyſecoea. See deafneſs.
Dyſenteria. B. 4.
Dyſopia. B. 366.
Dyſorexia. B. 349. 385.
Dyſpepſia. A. 279.
Dyſpermatiſmus. B. 449.
Dyſpnœa. A. 387.
Dyſuria. B. 446.

Ectopiæ. B 350. 477.
Efforts of nature to relieve herſelf. A. 88.
Electricity, as exciting the abſorbents. B. 211.
Elephantiaſis. B 307.
Emaciation. B. 216.
Emetic formulæ. A. 66. 241. 294. B. 2. 12. 120. 326.
Emproſthotonos. A. 367.
Encelephalocele. B. 489.
Enteritis. A. 128.
Enterocele. B. 479.
Enureſis. B. 425.
Ephidroſis. B. 416.
Epilepſy. A. 332.
Epiplocele. B. 486.
Epiphora. B 418.
Epiſcheſes. B. 350. 431.
Epiſtaxis. A. 182.
Eryſipelas. A. 92.
Erythema. A. 92.
Ether, obſervations on. A. 18.
Evaporation. A. 25.
Exania. B. 496.
Exanthemata. A. 149.
Exerciſe, obſervations on. B. 196.
Exophthalmia. B. 490.
Exoſtoſis. B. 474.
Expectorants. A. 111.

Fainting. A. 264.
Fatting poultry. A. 23.
Fibres. See fever.
Feeling, loſs of. B. 384.
Fern root, a cure for tænia. A. 78.
Fever, its proximate cauſe. A. 44
Fever, ardent, inflammatory, nervous, putrid, malignant, jail, hoſpital, bilious, autumnal, yellow. A. 5. 65.
Fever continued. A. 3. 5.
Fever eruptive. A. 149.
Fever hectic. A. 4.
Fever hectic, induced by worms. A. 76.
Fever intermittent. A. 3. 49. 70.
Fever, miliary. A. 167.
Fever, ſcarlet. A. 170.
Fever, puerperal. A. 68.
Fever tertian. A. 3.
Fever quartan. A. 3.

Fever Quotidian. A. 3.
Fiſtula, the remedy for. A. 215.
Flooding. A. 217.
Fluor albus. See Menorrhagia alba.
Fracture. B.
Framboeſia. A. 175.
Fraximus excelſior. A. 16.
Frictions as exciting actions in the abſorbents. B. 199.

Ganglion. B. 471.
Gangrene. A. 94.
Gargles. A. 100.
Gaſtritis. A. 126.
Gaſtrocele. B. 487.
Gaſtrodynia flatulenta. A. 377.
Gazpacho. A. 54.
Geoffræa Surinamenſis, as a powerful anthelmintic. A. 357.
Geum urbanum. A. 16.
Gimbernat's practice in the reduction of hernia femoralis. B. 482.
Gonorrhœa. B. 428.
Gout. A. 143.
Gout Cough. A. 115.
Grand gore. B. 298.
Granulation. B. 512.
Green ſickneſs B. 342.
Griffith, Dr. Moſes, his treatment of hectic. A. 206.
Gutta Serena. B. 357.

Habits, obſervations on. A. 341.
Hœmoptyſis. A. 186.
Hœmorrhages. A. 176.
Hœmorrhois. A. 211.
Hearing deſtroyed. B. 368.
Heat, obſervations on. A. 7. 9. 23.
Heat animal, the Generation of. A. 28. 107.
Heat of the human body. A. 107.
Hectic. A. 194. B. 219.
Hedyſarum Gyrans. A. 7.
Hemiplegia. A. 252.
Hemorrhagiæ. A. 2.
Hepatitis. A. 129.
Hepatocele. B. 487.
Hernia. B. 478.
Hernia femoralis. B. 481.
Hernia of the Cornea. B. 354.
Herpes. B.
Heſitation of Speech. B. 408.
Heurmius, his powder. A. 220.
Hooping Cough. B. 1.
Hope a tonic. A. 73.
Hydarthus. B. 473.
Hydatis. B. 473.
Hydrogen, its combinations. B. 204.
Hydrocele. B. 276.
Hydrocephalus externus. B. 261.
Hydrocephalus internus. A. 244.
Hydrometra. B. 275.
Hydrophobia. B. 52.
Hydrorachitis. B. 262.
Hydrothorax. B. 266.
Hypochondriaſis. A. 48. 285.
Hyſpoſtaphyle. B. 494.
Hyſteria. A. 40. 41. B. 34.
Hyſteritis. A. 134.
Hyſterocele. B. 488.
Hyſteroptoſis. B. 497.

Icterus. B. 314.
Impetigines. B. 182. 288.

Impotence. B. 398.
Incubus. B. 55.
Indigeſtion. A. 279.
Inflammations. A. 80
Inflammation of the Bladder. A. 133.
..... of the Bowels. A. 128.
..... of the Heart. A. 125.
..... of the Kidneys. A. 132.
..... of the Liver. A. 129.
..... of the Spleen. A. 131.
..... of the Stomach. A. 126.
..... of the Womb. A. 134.
Inoculation. A. 153.
Inſania. B. 93.
Intumeſcentiæ. B. 182. 229.
Iron, its wonderful uſe in the animal œconomy. B. 214.
Irritability, obſervations on. A. 298.
..... its accumulation. A. 10.
Iſchuria. B. 436.
Itch. B.
James's powder. A. 13.
Jaundice. B. 314.

King's evil. See Scrophula.

Lachrymation. B. 418.
Lepra. B. 311.
Leproſy. B. 311.
Lethargy. A. 239.
Light and heat, obſervations on. A. 23.
Liſle's powder. A. 12.
Locales. B. 349.
Low ſpirits. See Hypochondriaſis.
Lumbago. A. 138, 139.
Lupia. B. 471.
Luxatio. B. 497.

Mania. B. 129.
Mania Hyſterica. B. 156.
Mania Melancholica. B. 135.
Mania Mentalis of Dr. Cullen. B. 173.
Mania Phrenitoides. B. 145.
Marcores. B. 182.
Meaſles. A. 164.
Melancholia. B. 93.
Melancholic temperament. See temperament.
Menorrhagia. A. 217.
Menorrhagia alba. A. 222.
Menſes, partly or wholly obſtructed. B. 450.
Miliaria. A. 167.
Milk Porridge. A. 163.
Mimoſa Pudica. A. 7.
Mollities Oſſium. B. 193.
Motion impeded, or depraved. B. 395.
Mumps. A. 104.
Mutitas. B. 401.
Mutitas, Caſes of. B. 404.

Nephrites. A. 132.
Nervous Diſeaſes. See Neuroſes.
Neuroſes. A. 225.
Night Mare. B. 55.
Noſtalgia. B. 394.
Nouffer Madame, her cure of Tænia. A. 78.
Nutrition, obſervations on. B. 203.
Nymphomania. B. 393.

Oak bark, obſervations on. A. 16.
Obeſity. B. 229.
Obſtipatio. B. 431.
Odontalgia. A 141.
Oil, its chemical Analyſis. B. 206.
Oneirodynia. B. 55. 90.
Opthalmia. A. 94
Opiſthotonos. A. 367.
Opium, obſervations on. A. 18.

Paleneſs as a ſymptom of Melancholia. B. 113.
Palpitation. A. 38.
Palſy. See Paralyſis.
Paragloſſe. B. 495.
Paralyſis. A. 252.
Paraphonia. B. 406.
Paracuſis. B. 379.
Pareira brava. B. 379.
Pancreatic Juice. A. 33.
Pemphigus. A. 174.
Peripneumony. A. 121.
Perſpiration, the ſtate of, in Melancholia. B. 114.
Pertuſſis. B. 1.
Peruvian bark and vegetable aſtringents, obſervations on. A. 15.
Petechiæ. A. 161.
Phlegmaſiæ, their definition. A. 280.
Phlegmon. A. 91.
Phlogoſis A. 91.
Phoſphorus, its combinations. B. 204. 213.
Phoſphorus, its uſe in the animal Œconomy. B. 213.
Phrenitis. A. 97.
Phrenſy. See Phrenitis.
Phthiſis. A. 193.
Phyſconia. B. 278.
Phyſometra. B. 243.
Pica. B. 386.
Piles. A. 211.
Plague. A. 64.
Plethora, obſervations on. A. 184.
Pleuriſy. See Pneumonia.
Plica Polonica. B. 313.
Pneumatoſis. B. 231.
Pneumonia. A. 121.
Podagra. A. 143.
Polydipſia. B. 387.
Polyſarcia. B. 229.
Preſſure exciting the action of the abſorbents. B. 192. 199.
Profluvia. A. 224.
Profuſio. B 415.
Prolapſus. B. 490.
Prolapſus uteri. B. 497.
Proptoma. B. 496.
Prunus Pardus. A. 16.
Prunus ſpinoſa. A. 16.
Pſelliſmus. B. 408.
Pſeudoblepſis. B. 367.
Pſora. B.
Ptyaliſm. B. 423.
Putrefactive Proceſs. B. 211.
Pulſe, obſervations on. A. 37.
Pulſe, the nature of in Melancholia. B. 112.
Pyrexiæ, their definition. A. 1.
Pyroſis. B. 4.

Quinſey. A. 97. 98.

Rachialgia metallica. A. 253.
Rachitis. B. 279.
Raphania. A. 330.
Reſpiration, obſervations on. A. 26. 34. 277. B. 113.
Rheumatiſm. A. 135.
Rickets. B. 279

Rubeola. A. 164.
Rupture. B. 478.

Salivation. B. 423.
Salix alba, S. Fragilis, S. Triandria. A. 15.
Sarcoma. B. 467.
Satyriaſis. B. 389.
Scald head. See Tinea.
Scarlatina. A. 170.
Sciatica. A. 138.
Scirrhus. B. 459.
Scorbutus. B. 303.
Scrophula. B. 288.
Scurvy. See Scorbutus.
Sleep, as contributing to nutrion. B. 215.
Sleep, obſervations on. B. 71.
Small-pox. A. 150.
Smell, diminiſhed or deſtroyed. B. 382.
Solutions of continuity. B. 500.
Sounds, inability to utter. B. 400.
Spaſm, the occaſional cauſe of. A. 324.
Spaſm, the prediſponent cauſe of. A. 312.
Spaſmi. A. 298.
Spica, bandage. B. 485.
Spirits, depreſſed from a deficiency of vital air. B. 116.
Splenitis. A. 131.
Splenocele. B. 487.
Squinting. B. 412.
Stammering and ſtuttering. B. 409.
Staphyloma. B. 354.
Steel. See iron.
Stimuli, obſervations on. A. 37. 309.
Stomach cough. A. 115.
Strabiſmus. B. 412.
Sugar, its chemical analyſis. B. 206.
Sulphur, its combinations. B. 204. 212.
Suppuration, obſervations on. B. 509.
Syncope. A. 264.
Synocha. A. 5. 45. 51.
Syphilis. B. 298.
Sweating, violent and morbid. B. 416.
Swellings. B. 454.

Tabes. B. 203.
..... the ſpecies of. B. 221.
Tænia, its cure. A. 78.
Taſte, diminiſhed or deſtroyed. B. 383.
Teething cough. A. 114.
Temperament, melancholic. A. 48. 286.
Tetanus. A. 366.
Tettars. B.
Thirſt, its nature. A. 29.
..... exceſſive. B. 387.
Tinea. B.
Tubercles. A. 200.
Tumours. B. 350. 454.
Tuſſis athritica. A. 115.
Tuſſis convulſiva. A. 118.
Tuſſis a dentitione. A. 114.
Tuſſis exanthematica. A. 113.
Tuſſis ferina. A. 113.
Tuſſis ſtomachalis. A. 115.
Tuſſis verminoſa. A. 114.
Tonic. B. 329.
Tooth-ach. A. 141.
Trichoma. B. 313.

Triſmus. A. 367.
Tympanites. B. 234.
Typhus. A. 5. 40. 45. 46. 50.
..... a caſe of. A. 42.
..... indications of cure in. A. 55.

Ulcers and ulceration. B. 506. 510.
Urine, involuntary diſcharge of. B. 425.
Urine, ſuppreſſion of. B. 436.
..... difficulty and pain in diſcharge of. B. 446.
Uvula, falling. B. 494.

Varicella. A. 163.
Variola. A 150.
Varix. B. 457.
Vegetable ſubſtances, their chemical analyſis. P. 205.
Venereal diſeaſe. B. 298.
Verruca. B. 469.
Veſaniæ. B. 55.
Vigilance, obſervations on. B. 77.
Vital air, obſervations on. A. 26. 292. B. 42. 125 195. 201.
Voice, depravation of. B. 406.
Vomicæ. See tubercles
Vulnus. B. 500.

Water-braſh and water-pang. B. 4.
Water, its chemical analyſis. B. 206.
Ward's paſte for the fiſtula. A. 216.
Warts. See Verruca.
Whites. See menorrhagia alba.
White ſwelling. B. 297. 473.
Wine, its chemical analyſis. B. 206.
Worm cough. A. 114.
Worms, ſymptoms of. A. 75.
Wounds. B. 500.

Yeſt, in typhus. A. 61.
Yaws. A. 175.

5 DEC 60